

***Managerial Accounting 18th edition Garrison Test
Bank***

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CORRECT ANSWERS ARE LOCATED IN THE 2ND HALF OF THIS DOC.

MULTIPLE CHOICE - Choose the one alternative that best completes the statement or answers the question.

- 1) Which of the following statements are true?
 1. A cost driver is a factor, such as machine-hours, beds occupied, computer time, or flight-hours, that causes direct costs.
 2. Job-order costing systems often use allocation bases that do not reflect how jobs actually use overhead resources.
 3. An employee time ticket is an hour-by-hour summary of the employee's activities throughout the day.
 - A) Only statement I is true.
 - B) Statements I and II are true.
 - C) Statements II and III are true.
 - D) All of the statements are true.
- 2) Which of the following statements are true?
 1. The formula for computing the predetermined overhead rate is: $\text{Predetermined overhead rate} = \text{Estimated total amount of the allocation base} \div \text{Estimated total manufacturing overhead cost}$
 2. Generally speaking, when going through the process of computing a predetermined overhead rate, the estimated total manufacturing overhead cost is determined before estimating the amount of the allocation base.
 - A) Only statement I is true.
 - B) Only statement II is true.
 - C) Both of the statements are true.
 - D) Neither of the statements are true.
- 3) Which of the following statements are true?
 1. If a job is not completed at year end, then no manufacturing overhead cost would be applied to that job when a predetermined overhead rate is used.
 2. Actual overhead costs are not assigned to jobs in a job costing system.
 3. The amount of overhead applied to a particular job equals the actual amount of overhead caused by the job.
 - A) Only statement I is true.
 - B) Only statement II is true.
 - C) Statements II and III are true.
 - D) All of the statements are true.

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- 4) Which of the following statements are true?
1. Job cost sheets contain entries for actual direct material, actual direct labor, and actual manufacturing overhead cost incurred in completing a job.
 2. A job cost sheet is used to record how much a customer pays for the job once the job is completed.
- A) Only statement I is true.
 B) Only statement II is true.
 C) Both of the statements are true.
 D) Neither of the statements are true.
- 5) Which of the following statements are true?
1. In a job-order costing system, indirect labor is assigned to a job using information from the employee time ticket.
 2. If the allocation base in the predetermined overhead rate does not drive overhead costs, it will nevertheless provide reasonably accurate unit product costs because of the averaging process.
 3. In a job-order costing system, costs are traced to individual units of product. The sum total of such traced costs is called the unit product cost.
- A) Only statement I is true.
 B) Statements I and II are true.
 C) Statements II and III are true.
 D) None of the statements are true.
- 6) Which of the following statements are true?
1. The fact that one department may be labor intensive while another department is machine intensive explains in part why multiple predetermined overhead rates are often used in larger companies.
 2. A company will improve job cost accuracy by using multiple overhead rates even if it cannot identify more than one overhead cost driver.
 3. The appeal of using multiple departmental overhead rates is that they presumably provide a more accurate accounting of the costs caused by jobs.
- A) Only statement I is true.
 B) Statements I and III are true.
 C) Statements II and III are true.
 D) None of the statements are true.

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- 7) Which of the following statements are true?
1. The costs attached to products that have not been sold are included in ending inventory on the balance sheet.
 2. In absorption costing, nonmanufacturing costs are assigned to units of product.
 3. Most countries require some form of absorption costing for external reports.
- A) Only statement I is true.
 B) Only statement II is true.
 C) Statements I and III are true.
 D) All of the statements are true.
- 8) Which of the following statements are true?
1. A bill of materials is a document that lists the type and quantity of each type of direct material needed to complete a unit of product.
 2. An employee time ticket is used to record points that are earned by employees based on the hours they worked that can be used to pay for coffee, food in the cafeteria, and even in some cases for vacation travel.
- A) Only statement I is true.
 B) Only statement II is true.
 C) Both of the statements are true.
 D) Neither of the statements are true.
- 9) In a job-order costing system that is based on machine-hours, which of the following formulas is correct?
- A) Predetermined overhead rate = Actual manufacturing overhead ÷ Actual machine-hours
 B) Predetermined overhead rate = Actual manufacturing overhead ÷ Estimated machine-hours
 C) Predetermined overhead rate = Estimated manufacturing overhead ÷ Estimated machine-hours
 D) Predetermined overhead rate = Estimated manufacturing overhead ÷ Actual machine-hours

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- 10) Which of the following is the correct formula to compute the predetermined overhead rate?
- A) Predetermined overhead rate = Estimated total units in the allocation base ÷ Estimated total manufacturing overhead costs
 - B) Predetermined overhead rate = Estimated total manufacturing overhead costs ÷ Estimated total units in the allocation base
 - C) Predetermined overhead rate = Actual total manufacturing overhead costs ÷ Estimated total units in the allocation base
 - D) Predetermined overhead rate = Estimated total manufacturing overhead costs ÷ Actual total units in the allocation base.
- 11) Assigning manufacturing overhead to a specific job is complicated by all of the below except:
- A) Manufacturing overhead is an indirect cost that is either impossible or difficult to trace to a particular job.
 - B) Manufacturing overhead is incurred only to support some jobs.
 - C) Manufacturing overhead consists of both variable and fixed costs.
 - D) The average cost of actual fixed manufacturing overhead expenses will vary depending on how many units are produced in a period.
- 12) Which of the following statements about using a plantwide overhead rate based on direct labor is correct? TBEXAM.COM
- A) Using a plantwide overhead rate based on direct labor-hours will ensure that direct labor costs are correctly traced to jobs.
 - B) Using a plantwide overhead rate based on direct labor costs will ensure that direct labor costs will be correctly traced to jobs.
 - C) It is often overly simplistic and incorrect to assume that direct labor-hours is a company's only manufacturing overhead cost driver.
 - D) The labor theory of value ensures that using a plantwide overhead rate based on direct labor will do a reasonably good job of assigning overhead costs to jobs.

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13) Which of the following would usually be found on a job cost sheet under a normal cost system?

	Actual direct material cost	Actual manufacturing overhead cost
A)	Yes	Yes
B)	Yes	No
C)	No	Yes
D)	No	No
A) Choice A		
B) Choice B		
C) Choice C		
D) Choice D		

14) Which of the following statements is not correct concerning multiple overhead rate systems?

- A) A multiple overhead rate system is more complex than a system based on a single plantwide overhead rate.
- B) A multiple overhead rate system is usually more accurate than a system based on a single plantwide overhead rate.
- C) A company may choose to create a separate overhead rate for each of its production departments.
- D) In departments that are relatively labor-intensive, their overhead costs should be applied to jobs based on machine-hours rather than on direct labor-hours.

15) Johansen Corporation uses a predetermined overhead rate based on direct labor-hours to apply manufacturing overhead to jobs. The Corporation has provided the following estimated costs for the next year:

Direct materials	\$ 6,000
Direct labor	\$ 20,000
Rent on factory building	\$ 15,000
Sales salaries	\$ 25,000
Depreciation on factory equipment	\$ 8,000
Indirect labor	\$ 12,000
Production supervisor's salary	\$ 15,000

Jameson estimates that 20,000 direct labor-hours will be worked during the year. The predetermined overhead rate per hour will be:

- A) \$2.50 per direct labor-hour
- B) \$2.79 per direct labor-hour
- C) \$3.00 per direct labor-hour
- D) \$4.00 per direct labor-hour

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- 16) The Silver Corporation uses a predetermined overhead rate to apply manufacturing overhead to jobs. The predetermined overhead rate is based on labor cost in Department A and on machine-hours in Department B. At the beginning of the year, the Corporation made the following estimates:

	Department A	Department B
Direct labor cost	\$ 60,000	\$ 40,000
Manufacturing overhead	\$ 90,000	\$ 45,000
Direct labor-hours	6,000	9,000
Machine-hours	2,000	15,000

What predetermined overhead rates would be used in Department A and Department B, respectively?

- A) 67% and \$3.00
 - B) 150% and \$5.00
 - C) 150% and \$3.00
 - D) 67% and \$5.00
- 17) Purves Corporation is using a predetermined overhead rate that was based on estimated total fixed manufacturing overhead of \$121,000 and 10,000 direct labor-hours for the period. The company incurred actual total fixed manufacturing overhead of \$113,000 and 10,900 total direct labor-hours during the period. The predetermined overhead rate is closest to:
- A) \$10.37
 - B) \$12.10
 - C) \$11.10
 - D) \$11.30

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- 18) Reamer Corporation uses a predetermined overhead rate based on machine-hours to apply manufacturing overhead to jobs. The Corporation has provided the following estimated costs for next year:

Direct materials	\$ 1,000
Direct labor	\$ 3,000
Sales commissions	\$ 4,000
Salary of production supervisor	\$ 2,000
Indirect materials	\$ 400
Advertising expense	\$ 800
Rent on factory equipment	\$ 1,000

Reamer estimates that 500 direct labor-hours and 1,000 machine-hours will be worked during the year. The predetermined overhead rate per hour will be:

- A) \$6.80 per machine-hour
- B) \$6.00 per machine-hour
- C) \$3.00 per machine-hour
- D) \$3.40 per machine-hour

- 19) Baj Corporation uses a predetermined overhead rate base on machine-hours that it recalculates at the beginning of each year. The company considers all of its manufacturing overhead costs to be fixed and it has provided the following data for the most recent year.

Estimated total fixed manufacturing overhead from the beginning of the year	\$ 534,000
Estimated activity level from the beginning of the year	30,000 machine-hours
Actual total fixed manufacturing overhead	\$ 487,000
Actual activity level	27,400 machine-hours

The predetermined overhead rate per machine-hour would be closest to:

- A) \$17.80
- B) \$19.49
- C) \$16.23
- D) \$17.77

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- 20) Giannitti Corporation bases its predetermined overhead rate on the estimated machine-hours for the upcoming year. Data for the upcoming year appear below:

Estimated machine-hours	72,700
Estimated variable manufacturing overhead	\$ 3.10 per machine-hour
Estimated total fixed manufacturing overhead	\$ 838,800

The predetermined overhead rate for the recently completed year was closest to:

- A) \$9.30 per machine-hour
- B) \$14.64 per machine-hour
- C) \$8.67 per machine-hour
- D) \$6.83 per machine-hour

- 21) Giannitti Corporation bases its predetermined overhead rate on the estimated machine-hours for the upcoming year. Data for the upcoming year appear below:

Estimated machine-hours	36,000
Estimated variable manufacturing overhead	\$ 3.01 per machine-hour
Estimated total fixed manufacturing overhead	\$ 1,058,040

The predetermined overhead rate for the recently completed year was closest to:

- A) \$29.39 per machine-hour
- B) \$32.40 per machine-hour
- C) \$32.81 per machine-hour
- D) \$3.01 per machine-hour

- 22) Gilchrist Corporation bases its predetermined overhead rate on the estimated machine-hours for the upcoming year. At the beginning of the most recently completed year, the Corporation estimated the machine-hours for the upcoming year at 28,100 machine-hours. The estimated variable manufacturing overhead was \$4.47 per machine-hour and the estimated total fixed manufacturing overhead was \$789,048. The predetermined overhead rate for the recently completed year was closest to:

- A) \$32.55 per machine-hour
- B) \$31.55 per machine-hour
- C) \$4.47 per machine-hour
- D) \$28.08 per machine-hour

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- 23) Gilchrist Corporation bases its predetermined overhead rate on the estimated machine-hours for the upcoming year. At the beginning of the most recently completed year, the Corporation estimated the machine-hours for the upcoming year at 79,000 machine-hours. The estimated variable manufacturing overhead was \$7.38 per machine-hour and the estimated total fixed manufacturing overhead was \$2,347,090. The predetermined overhead rate for the recently completed year was closest to:
- A) \$37.09 per machine-hour
 - B) \$36.07 per machine-hour
 - C) \$7.38 per machine-hour
 - D) \$29.71 per machine-hour
- 24) Dearden Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$144,000, variable manufacturing overhead of \$2.00 per machine-hour, and 60,000 machine-hours. The predetermined overhead rate is closest to:
- A) \$2.40 per machine-hour
 - B) \$6.40 per machine-hour
 - C) \$4.40 per machine-hour
 - D) \$2.00 per machine-hour
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- 25) Longobardi Corporation bases its predetermined overhead rate on the estimated labor-hours for the upcoming year. At the beginning of the most recently completed year, the Corporation estimated the labor-hours for the upcoming year at 30,700 labor-hours. The estimated variable manufacturing overhead was \$5.09 per labor-hour and the estimated total fixed manufacturing overhead was \$724,827. The actual labor-hours for the year turned out to be 27,300 labor-hours. The predetermined overhead rate for the recently completed year was closest to:
- A) \$28.70 per labor-hour
 - B) \$23.61 per labor-hour
 - C) \$5.09 per labor-hour
 - D) \$32.27 per labor-hour

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- 26) Longobardi Corporation bases its predetermined overhead rate on the estimated labor-hours for the upcoming year. At the beginning of the most recently completed year, the Corporation estimated the labor-hours for the upcoming year at 46,000 labor-hours. The estimated variable manufacturing overhead was \$6.25 per labor-hour and the estimated total fixed manufacturing overhead was \$1,026,260. The actual labor-hours for the year turned out to be 41,200 labor-hours. The predetermined overhead rate for the recently completed year was closest to:
- A) \$28.56 per labor-hour
 - B) \$22.31 per labor-hour
 - C) \$6.25 per labor-hour
 - D) \$31.16 per labor-hour
- 27) Valvano Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$440,000, variable manufacturing overhead of \$2.20 per machine-hour, and 50,000 machine-hours. The estimated total manufacturing overhead is closest to:
- A) \$440,000
 - B) \$110,000
 - C) \$440,002
 - D) \$550,000

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- 28) Brothern Corporation bases its predetermined overhead rate on the estimated machine-hours for the upcoming year. Data for the most recently completed year appear below:

Estimates made at the beginning of the year:

Estimated machine-hours	41,000
Estimated variable manufacturing overhead	\$ 5.21 per machine-hour
Estimated total fixed manufacturing overhead	\$ 1,228,770
Actual machine-hours for the year	37,600

The predetermined overhead rate for the recently completed year was closest to:

- A) \$34.75 per machine-hour
- B) \$35.18 per machine-hour
- C) \$5.21 per machine-hour
- D) \$29.97 per machine-hour

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- 29) Brothern Corporation bases its predetermined overhead rate on the estimated machine-hours for the upcoming year. Data for the most recently completed year appear below:

Estimates made at the beginning of the year:

Estimated machine-hours	39,000
Estimated variable manufacturing overhead	\$ 6.76 per machine-hour
Estimated total fixed manufacturing overhead	\$ 794,430
Actual machine-hours for the year	42,700

The predetermined overhead rate for the recently completed year was closest to:

- A) \$25.37 per machine-hour
- B) \$27.13 per machine-hour
- C) \$6.76 per machine-hour
- D) \$20.37 per machine-hour

- 30) Steele Corporation uses a predetermined overhead rate based on machine-hours to apply manufacturing overhead to jobs. Steele Corporation has provided the following estimated costs for next year:

Direct materials	TBEXAM.COM	\$ 20,000
Direct labor		\$ 60,000
Sales commissions		\$ 80,000
Salary of production supervisor		\$ 40,000
Indirect materials		\$ 8,000
Advertising expense		\$ 16,000
Rent on factory equipment		\$ 20,000

Steele estimates that 10,000 direct labor-hours and 16,000 machine-hours will be worked during the year. The predetermined overhead rate per hour will be:

- A) \$4.25
- B) \$8.00
- C) \$9.00
- D) \$10.25

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- 31) Helland Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on the following data:

Total direct labor-hours	30,000
Total fixed manufacturing overhead cost	\$ 189,000
Variable manufacturing overhead per direct labor-hour	\$ 2.50

The predetermined overhead rate is closest to:

- A) \$2.50 per direct labor-hour
- B) \$11.30 per direct labor-hour
- C) \$6.30 per direct labor-hour
- D) \$8.80 per direct labor-hour

- 32) Laflame Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	70,000
Total fixed manufacturing overhead cost	\$ 357,000
Variable manufacturing overhead per machine-hour	\$ 3.90

The estimated total manufacturing overhead is closest to:

- A) \$273,000
- B) \$630,000
- C) \$357,004
- D) \$357,000

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- 33) Almaraz Corporation has two manufacturing departments--Forming and Finishing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Forming	Finishing	Total
Estimated total machine-hours (MHs)	7,000	3,000	10,000
Estimated total fixed manufacturing overhead cost	\$ 40,600	\$ 8,100	\$ 48,700
Estimated variable manufacturing overhead cost per MH	\$ 1.30	\$ 2.80	

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. That predetermined manufacturing overhead rate is closest to:

- A) \$6.62
- B) \$4.87
- C) \$4.10
- D) \$7.10

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- 34) Bernson Corporation is using a predetermined overhead rate that was based on estimated total fixed manufacturing overhead of \$492,000 and 30,000 machine-hours for the period. The company incurred actual total fixed manufacturing overhead of \$517,000 and 28,300 total machine-hours during the period. The amount of manufacturing overhead that would have been applied to all jobs during the period is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$464,120
- B) \$492,000
- C) \$487,703
- D) \$25,000

- 35) Beat Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	40,000
Total fixed manufacturing overhead cost	\$ 344,000
Variable manufacturing overhead per machine-hour	\$ 3.90

Recently, Job M759 was completed. It required 60 machine-hours. The amount of overhead applied to Job M759 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$750
- B) \$516
- C) \$984
- D) \$234

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- 36) Mundorf Corporation has two manufacturing departments--Forming and Assembly. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Forming	Assembly	Total
Estimated total machine-hours (MHs)	9,000	1,000	10,000
Estimated total fixed manufacturing overhead cost	\$ 52,200	\$ 2,400	\$ 54,600
Estimated variable manufacturing overhead cost per MH	\$ 2.00	\$ 2.10	

During the most recent month, the company started and completed two jobs--Job B and Job H. There were no beginning inventories. Data concerning those two jobs follow:

	Job B	Job H
Forming machine-hours	6,100	2,900
Assembly machine-hours	400	600

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. The amount of manufacturing overhead applied to Job B is closest to:

- A) \$48,555
- B) \$35,490
- C) \$2,988
- D) \$45,567

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- 37) Parido Corporation has two manufacturing departments--Casting and Assembly. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Casting	Assembly	Total
Estimated total machine-hours (MHs)	8,000	2,000	10,000
Estimated total fixed manufacturing overhead cost	\$ 44,000	\$ 4,200	\$ 48,200
Estimated variable manufacturing overhead cost per MH	\$ 1.90	\$ 3.00	

During the most recent month, the company started and completed two jobs--Job A and Job H. There were no beginning inventories. Data concerning those two jobs follow:

	Job A	Job H
Casting machine-hours	5,400	2,600
Assembly machine-hours	800	1,200

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. The amount of manufacturing overhead applied to Job H is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$8,328
- B) \$26,372
- C) \$18,316
- D) \$18,044

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- 38) Juanita Corporation uses a job-order costing system and applies overhead on the basis of direct labor cost. At the end of October, Juanita had one job still in process. The job cost sheet for this job contained the following information:

Direct materials	\$ 480
Direct labor	\$ 150
Manufacturing overhead applied	\$ 600

An additional \$100 of labor was needed in November to complete this job. For this job, how much should Juanita have transferred to finished goods inventory in November when it was completed?

- A) \$1,330
- B) \$500
- C) \$1,230
- D) \$1,730

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- 39) Carradine Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$105,000, variable manufacturing overhead of \$3.00 per machine-hour, and 70,000 machine-hours. The company recently completed Job P233 which required 60 machine-hours. The amount of overhead applied to Job P233 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$90
- B) \$270
- C) \$450
- D) \$180

- 40) Fusaro Corporation uses a predetermined overhead rate base on machine-hours that it recalculates at the beginning of each year. The company has provided the following data for the most recent year.

Estimated total fixed manufacturing overhead from the beginning of the year \$ 684,000

Estimated activity level from the beginning of the year 40,000 machine-hours

Actual total fixed manufacturing overhead \$ 616,000

Actual activity level 37,700 machine-hours

The amount of manufacturing overhead that would have been applied to all jobs during the period is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$644,670
- B) \$684,000
- C) \$68,000
- D) \$580,580

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- 41) Koelsch Corporation has two manufacturing departments--Molding and Customizing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Molding	Customizing	Total
Estimated total machine-hours (MHs)	1,000	9,000	10,000
Estimated total fixed manufacturing overhead cost	\$ 4,000	\$ 25,200	\$ 29,200
Estimated variable manufacturing overhead cost per MH	\$ 2.00	\$ 3.00	

During the most recent month, the company started and completed two jobs--Job F and Job K. There were no beginning inventories. Data concerning those two jobs follow:

	Job F	Job K
Direct materials	\$ 12,300	\$ 8,400
Direct labor cost	\$ 18,200	\$ 6,800
Molding machine-hours	700	300
Customizing machine-hours	3,600	5,400

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours and uses a markup of 50% on manufacturing cost to establish selling prices. The calculated selling price for Job K is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$72,561
- B) \$79,817
- C) \$24,187
- D) \$48,374

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- 42) Thach Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$665,000, variable manufacturing overhead of \$3.00 per machine-hour, and 70,000 machine-hours. Recently, Job T321 was completed with the following characteristics:

Number of units in the job	30
Total machine-hours	90
Direct materials	\$ 630
Direct labor cost	\$ 2,880

The unit product cost for Job T321 is closest to:

- A) \$117.00
- B) \$58.50
- C) \$154.50
- D) \$51.50

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- 43) Tancredi Corporation has two manufacturing departments--Machining and Customizing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Machining	Customizing	Total
Estimated total machine-hours (MHs)	5,000	5,000	10,000
Estimated total fixed manufacturing overhead cost	\$ 22,000	\$ 11,500	\$ 33,500
Estimated variable manufacturing overhead cost per MH	\$ 1.80	\$ 3.00	

During the most recent month, the company started and completed two jobs--Job E and Job J. There were no beginning inventories. Data concerning those two jobs follow:

	Job E	Job J
Direct materials	\$ 12,800	\$ 7,000
Direct labor cost	\$ 17,600	\$ 7,700
Machining machine-hours	3,400	1,600
Customizing machine-hours	2,000	3,000

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. If both jobs are sold during the month, the company's cost of goods sold for the month would be closest to: TBEXAM.COM

Note: Round your intermediate calculations to 2 decimal places.

- A) \$102,600
- B) \$61,450
- C) \$41,150
- D) \$110,808

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- 44) Session Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on the following data:

Total direct labor-hours	70,000
Total fixed manufacturing overhead cost	\$ 511,000
Variable manufacturing overhead per direct labor-hour	\$ 2.10

Recently, Job K913 was completed with the following characteristics:

Total direct labor-hours	150
Direct materials	\$ 705
Direct labor cost	\$ 4,650

The total job cost for Job K913 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$6,060
- B) \$2,115
- C) \$6,765
- D) \$5,355

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- 45) Pebbles Corporation has two manufacturing departments--Casting and Finishing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Casting	Finishing	Total
Estimated total machine-hours (MHs)	2,000	3,000	5,000
Estimated total fixed manufacturing overhead cost	\$ 9,800	\$ 6,300	\$ 16,100
Estimated variable manufacturing overhead cost per MH	\$ 2.00	\$ 2.40	

During the most recent month, the company started and completed two jobs--Job A and Job L. There were no beginning inventories. Data concerning those two jobs follow:

	Job A	Job L
Direct materials	\$ 15,400	\$ 9,600
Direct labor cost	\$ 24,900	\$ 6,200
Casting machine-hours	1,400	600
Finishing machine-hours	1,200	1,800

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. The total manufacturing cost assigned to Job L is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$9,600
- B) \$6,200
- C) \$28,904
- D) \$13,104

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- 46) Stockmaster Corporation has two manufacturing departments--Forming and Assembly. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Forming	Assembly	Total
Estimated total machine-hours (MHs)	5,000	5,000	10,000
Estimated total fixed manufacturing overhead cost	\$ 27,000	\$ 10,500	\$ 37,500
Estimated variable manufacturing overhead cost per MH	\$ 1.10	\$ 2.80	

During the most recent month, the company started and completed two jobs--Job C and Job H. There were no beginning inventories. Data concerning those two jobs follow:

	Job C	Job H
Direct materials	\$ 11,200	\$ 7,500
Direct labor cost	\$ 21,000	\$ 7,800
Forming machine-hours	3,400	1,600
Assembly machine-hours	2,000	3,000

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours and uses a markup of 40% on manufacturing cost to establish selling prices. The calculated selling price for Job C is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$96,989
- B) \$88,172
- C) \$25,192
- D) \$62,980

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- 47) Atteberry Corporation has two manufacturing departments--Machining and Finishing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Machining	Finishing	Total
Estimated total machine-hours (MHs)	6,000	4,000	10,000
Estimated total fixed manufacturing overhead cost	\$ 30,000	\$ 11,200	\$ 41,200
Estimated variable manufacturing overhead cost per MH	\$ 2.00	\$ 2.40	

During the most recent month, the company started and completed two jobs--Job E and Job L. There were no beginning inventories. Data concerning those two jobs follow:

	Job E	Job L
Direct materials	\$ 13,400	\$ 9,100
Direct labor cost	\$ 24,500	\$ 7,000
Machining machine-hours	4,100	1,900
Finishing machine-hours	1,600	2,400

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. The total manufacturing cost assigned to Job E is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$24,500
- B) \$35,796
- C) \$13,400
- D) \$73,696

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- 48) Coates Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$249,000, variable manufacturing overhead of \$3.80 per machine-hour, and 30,000 machine-hours. The company has provided the following data concerning Job X784 which was recently completed:

Number of units in the job	50
Total machine-hours	250
Direct materials	\$ 470
Direct labor cost	\$ 5,500

If the company marks up its unit product costs by 30% then the selling price for a unit in Job X784 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$253.87
- B) \$233.87
- C) \$53.97
- D) \$155.22

- 49) Sutter Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	10,000
Total fixed manufacturing overhead cost	\$ 35,000
Variable manufacturing overhead per machine-hour	\$ 2.20

Recently, Job T369 was completed with the following characteristics:

Number of units in the job	10
Total machine-hours	40
Direct materials	\$ 750
Direct labor cost	\$ 1,560

If the company marks up its unit product costs by 20% then the selling price for a unit in Job T369 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$324.56
- B) \$304.56
- C) \$277.20
- D) \$50.76

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- 50) Doakes Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on the following data:

Total direct labor-hours	60,000
Total fixed manufacturing overhead cost	\$ 378,000
Variable manufacturing overhead per direct labor-hour	\$ 2.20

Recently, Job M843 was completed with the following characteristics:

Number of units in the job	60
Total direct labor-hours	120
Direct materials	\$ 630
Direct labor cost	\$ 2,400

The unit product cost for Job M843 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$33.75
- B) \$67.50
- C) \$27.50
- D) \$50.50

- 51) Placker Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$155,000, variable manufacturing overhead of \$3.40 per machine-hour, and 50,000 machine-hours. Recently, Job A881 was completed with the following characteristics:

Total machine-hours	100
Direct materials	\$ 645
Direct labor cost	\$ 2,300

The total job cost for Job A881 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$3,595
- B) \$2,945
- C) \$2,950
- D) \$1,295

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- 52) Tomey Corporation has two production departments, Forming and Finishing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Finishing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Finishing
Machine-hours	18,000	14,000
Direct labor-hours	2,000	8,000
Total fixed manufacturing overhead cost	\$ 99,000	\$ 70,400
Variable manufacturing overhead per machine-hour	\$ 2.10	
Variable manufacturing overhead per direct labor-hour		\$ 3.70

During the current month the company started and finished Job T617. The following data were recorded for this job:

Job T617:	Forming	Finishing
Machine-hours	90	20
Direct labor-hours	30	60
Direct materials	\$ 940	\$ 350
Direct labor cost	\$ 960	\$ 1,920

The total job cost for Job T617 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$5,604
- B) \$2,584
- C) \$684
- D) \$3,020

Managerial Accounting Edition 18 by Garrison

- 53) Molash Corporation has two manufacturing departments--Machining and Assembly. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Machining	Assembly	Total
Estimated total machine-hours (MHs)	2,000	3,000	5,000
Estimated total fixed manufacturing overhead cost	\$ 9,400	\$ 8,100	\$ 17,500
Estimated variable manufacturing overhead cost per MH	\$ 1.80	\$ 2.40	

During the most recent month, the company started and completed two jobs--Job B and Job L. There were no beginning inventories. Data concerning those two jobs follow:

	Job B	Job L
Direct materials	\$ 14,400	\$ 7,100
Direct labor cost	\$ 23,500	\$ 6,700
Machining machine-hours	1,400	600
Assembly machine-hours	1,200	1,800

Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. Further assume that the company uses a markup of 50% on manufacturing cost to establish selling prices. The calculated selling price for Job L is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$40,320
- B) \$41,933
- C) \$13,440
- D) \$26,880

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54) Columbo Corporation has two production departments, Forming and Finishing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Finishing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Finishing
Machine-hours	17,000	10,000
Direct labor-hours	1,000	9,000
Total fixed manufacturing overhead cost	\$ 110,500	\$ 78,300
Variable manufacturing overhead per machine-hour	\$ 1.60	
Variable manufacturing overhead per direct labor-hour		\$ 3.30

During the current month the company started and finished Job A948. The following data were recorded for this job:

Job A948:	Forming	Finishing
Machine-hours	70	30
Direct labor-hours	10	50
Direct materials	\$ 650	\$ 330
Direct labor cost	\$ 380	\$ 1,900

If the company marks up its manufacturing costs by 40% then the selling price for Job A948 would be closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$6,197.80
- B) \$1,770.80
- C) \$4,427.00
- D) \$6,818.00

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55) Lotz Corporation has two manufacturing departments--Casting and Finishing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Casting	Finishing	Total
Estimated total machine-hours (MHs)	2,000	8,000	10,000
Estimated total fixed manufacturing overhead cost	\$ 10,200	\$ 19,200	\$ 29,400
Estimated variable manufacturing overhead cost per MH	\$ 1.20	\$ 2.20	

During the most recent month, the company started and completed two jobs--Job F and Job K. There were no beginning inventories. Data concerning those two jobs follow:

	Job F	Job K
Direct materials	\$ 14,400	\$ 7,100
Direct labor cost	\$ 22,500	\$ 6,600
Casting machine-hours	1,400	600
Finishing machine-hours	3,200	4,800

Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. Further assume that the company uses a markup of 50% on manufacturing cost to establish selling prices. The calculated selling price for Job F is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$30,220
- B) \$90,660
- C) \$60,440
- D) \$96,100

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- 56) Ashe Corporation has two manufacturing departments--Machining and Customizing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Machining	Customizing	Total
Estimated total machine-hours (MHs)	1,000	4,000	5,000
Estimated total fixed manufacturing overhead cost	\$ 4,700	\$ 9,200	\$ 13,900
Estimated variable manufacturing overhead cost per MH	\$ 1.10	\$ 2.60	

During the most recent month, the company started and completed two jobs--Job B and Job K. There were no beginning inventories. Data concerning those two jobs follow:

	Job B	Job K
Machining machine-hours	700	300
Customizing machine-hours	1,600	2,400

Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. The manufacturing overhead applied to Job K is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$11,760
- B) \$1,740
- C) \$13,716
- D) \$13,500

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57) Boward Corporation has two production departments, Milling and Assembly. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Milling Department's predetermined overhead rate is based on machine-hours and the Assembly Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Milling	Assembly
Machine-hours	18,000	12,000
Direct labor-hours	2,000	7,000
Total fixed manufacturing overhead cost	\$ 120,600	\$ 76,300
Variable manufacturing overhead per machine-hour	\$ 2.00	
Variable manufacturing overhead per direct labor-hour		\$ 4.30

During the current month the company started and finished Job T818. The following data were recorded for this job:

Job T818:	Milling	Assembly
Machine-hours	50	30
Direct labor-hours	10	40

The total amount of overhead applied in both departments to Job T818 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$1,651
- B) \$608
- C) \$435
- D) \$1,043

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58) Malakan Corporation has two production departments, Machining and Finishing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Finishing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Finishing
Machine-hours	18,000	11,000
Direct labor-hours	2,000	9,000
Total fixed manufacturing overhead cost	\$ 102,600	\$ 96,300
Variable manufacturing overhead per machine-hour	\$ 2.10	
Variable manufacturing overhead per direct labor-hour		\$ 3.90

During the current month the company started and finished Job K368. The following data were recorded for this job:

Job K368:	Machining	Finishing
Machine-hours	80	30
Direct labor-hours	20	40

The amount of overhead applied in the Machining Department to Job K368 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$856.00
- B) \$168.00
- C) \$624.00
- D) \$140,400.00

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- 59) Mahon Corporation has two production departments, Casting and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Casting Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Casting	Customizing
Machine-hours	15,600	13,600
Direct labor-hours	5,600	6,800
Total fixed manufacturing overhead cost	\$ 95,160	\$ 58,480
Variable manufacturing overhead per machine-hour	\$ 2.30	
Variable manufacturing overhead per direct labor-hour		\$ 4.50

During the current month the company started and finished Job T138. The following data were recorded for this job:

Job T138:	Casting	Customizing
Machine-hours	100	30
Direct labor-hours	12	80

The amount of overhead applied in the Customizing Department to Job T138 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$528.00
- B) \$89,080.00
- C) \$1,048.00
- D) \$264.00

Managerial Accounting Edition 18 by Garrison

60) Mahon Corporation has two production departments, Casting and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Casting Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Casting	Customizing
Machine-hours	18,000	14,000
Direct labor-hours	2,000	7,000
Total fixed manufacturing overhead cost	\$ 124,200	\$ 68,600
Variable manufacturing overhead per machine-hour	\$ 1.90	
Variable manufacturing overhead per direct labor-hour		\$ 3.80

During the current month the company started and finished Job T138. The following data were recorded for this job:

Job T138:	Casting	Customizing
Machine-hours	70	30
Direct labor-hours	10	60

The amount of overhead applied in the Customizing Department to Job T138 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$588.00
- B) \$95,200.00
- C) \$816.00
- D) \$228.00

Managerial Accounting Edition 18 by Garrison

- 61) Marioni Corporation has two manufacturing departments--Forming and Assembly. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Forming	Assembly	Total
Estimated total machine-hours (MHs)	7,000	3,000	10,000
Estimated total fixed manufacturing overhead cost	\$ 37,100	\$ 9,000	\$ 46,100
Estimated variable manufacturing overhead cost per MH	\$ 1.70	\$ 2.60	

During the most recent month, the company started and completed two jobs--Job B and Job H. There were no beginning inventories. Data concerning those two jobs follow:

	Job B	Job H
Forming machine-hours	4,800	2,200
Assembly machine-hours	1,200	1,800

Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. The manufacturing overhead applied to Job B is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$6,720
- B) \$33,600
- C) \$40,320
- D) \$39,480

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- 62) Bassett Corporation has two production departments, Milling and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Milling Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Milling	Customizing
Machine-hours	16,000	12,000
Direct labor-hours	2,000	8,000
Total fixed manufacturing overhead cost	\$ 118,400	\$ 87,200
Variable manufacturing overhead per machine-hour	\$ 2.10	
Variable manufacturing overhead per direct labor-hour		\$ 3.30

The predetermined overhead rate for the Milling Department is closest to:

- A) \$19.00 per machine-hour
- B) \$2.10 per machine-hour
- C) \$9.50 per machine-hour
- D) \$7.40 per machine-hour

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- 63) Fatzinger Corporation has two production departments, Milling and Assembly. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Milling Department's predetermined overhead rate is based on machine-hours and the Assembly Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Milling	Assembly
Machine-hours	20,000	14,000
Direct labor-hours	2,000	7,000
Total fixed manufacturing overhead cost	\$ 132,000	\$ 57,400
Variable manufacturing overhead per machine-hour	\$ 2.30	
Variable manufacturing overhead per direct labor-hour		\$ 3.40

The predetermined overhead rate for the Assembly Department is closest to:

- A) \$8.20 per direct labor-hour
- B) \$3.40 per direct labor-hour
- C) \$4.06 per direct labor-hour
- D) \$11.60 per direct labor-hour

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- 64) Swango Corporation has two production departments, Casting and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Casting Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Casting	Customizing
Machine-hours	19,000	11,000
Direct labor-hours	1,000	8,000
Total fixed manufacturing overhead cost	\$ 138,700	\$ 86,400
Variable manufacturing overhead per machine-hour	\$ 1.60	
Variable manufacturing overhead per direct labor-hour		\$ 3.00

The estimated total manufacturing overhead for the Customizing Department is closest to:

- A) \$24,000
- B) \$110,400
- C) \$86,400
- D) \$60,379

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- 65) Tarrant Corporation has two manufacturing departments--Casting and Finishing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Casting	Finishing	Total
Estimated total machine-hours (MHs)	1,000	4,000	5,000
Estimated total fixed manufacturing overhead cost	\$ 5,700	\$ 11,200	\$ 16,900
Estimated variable manufacturing overhead cost per MH	\$ 1.30	\$ 2.90	

Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both departments. The departmental predetermined overhead rate in the Casting Department is closest to:

- A) \$5.70
- B) \$1.30
- C) \$5.96
- D) \$7.00

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- 66) Prayer Corporation has two production departments, Machining and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Customizing
Machine-hours	19,000	13,000
Direct labor-hours	1,000	8,000
Total fixed manufacturing overhead cost	\$ 110,200	\$ 68,800
Variable manufacturing overhead per machine-hour	\$ 2.00	
Variable manufacturing overhead per direct labor-hour		\$ 3.60

The estimated total manufacturing overhead for the Machining Department is closest to:

- A) \$148,200
- B) \$110,200
- C) \$38,000
- D) \$299,725

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- 67) Camm Corporation has two manufacturing departments--Forming and Assembly. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Forming	Assembly	Total
Estimated total machine-hours (MHs)	3,000	2,000	5,000
Estimated total fixed manufacturing overhead cost	\$ 12,600	\$ 4,600	\$ 17,200
Estimated variable manufacturing overhead cost per MH	\$ 1.70	\$ 2.50	

Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both departments. The departmental predetermined overhead rate in the Assembly Department is closest to:

- A) \$2.50
- B) \$2.30
- C) \$4.80
- D) \$5.46

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- 68) Waldbauer Incorporated uses a job-order costing system. In October the company completed job N66B that consisted of 10,000 units of one of the company's standard products. No other jobs were in process or sold during the month. The job cost sheet for job N66B shows the following costs:

Beginning balance	\$ 41,000
Direct materials	\$ 251,000
Direct labor	\$ 98,000
Manufacturing overhead cost applied	\$ 192,000

The company's total manufacturing overhead applied always equals its total manufacturing overhead. During the month, 3,000 completed units from job N66B were sold.

The cost of goods sold that would appear on the income statement for October is closest to:

- A) \$407,400
- B) \$174,600
- C) \$582,000
- D) \$162,300

- 69) Waldbauer Incorporated uses a job-order costing system. In October the company completed job N66B that consisted of 10,000 units of one of the company's standard products. No other jobs were in beginning finished goods inventory or work in process during the month. The job cost sheet for job N66B shows the following costs:

Beginning balance	TBEXAM.COM	\$ 53,000
Direct materials		\$ 263,000
Direct labor cost		\$ 218,000
Manufacturing overhead cost applied		\$ 204,000

The company's total manufacturing overhead applied always equals its total manufacturing overhead. During the month, 4,200 completed units from job N66B were sold.

The finished goods inventory that would appear on the balance sheet at the end of October would be:

- A) \$428,040
- B) \$309,960
- C) \$738,000
- D) \$174,300

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- 70) Waldbauer Incorporated uses a job-order costing system. In October the company completed job N66B that consisted of 10,000 units of one of the company's standard products. No other jobs were in beginning finished goods inventory or work in process during the month. The job cost sheet for job N66B shows the following costs:

Beginning balance	\$ 41,000
Direct materials	\$ 251,000
Direct labor cost	\$ 98,000
Manufacturing overhead cost applied	\$ 192,000

The company's total manufacturing overhead applied always equals its total manufacturing overhead. During the month, 3,000 completed units from job N66B were sold.

The finished goods inventory that would appear on the balance sheet at the end of October would be:

- A) \$407,400
 - B) \$174,600
 - C) \$582,000
 - D) \$162,300
- 71) Abramov Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In May the company completed job N29W that consisted of 15,000 units of one of the company's standard products. No other jobs were in process or sold during the month. The job cost sheet for job N29W shows that the job's total cost was \$732,000. During the month, 6,000 completed units from job N29W were sold. The cost of goods sold for May is closest to:
- A) \$709,500
 - B) \$732,000
 - C) \$297,720
 - D) \$292,800
- 72) Abramov Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In May the company completed job N29W that consisted of 15,000 units of one of the company's standard products. No other jobs were in beginning finished goods inventory or work in process during the month. The job cost sheet for job N29W shows that the job's total cost was \$732,000. During the month, 6,000 completed units from job N29W were sold. The finished goods inventory at the end of May is closest to:
- A) \$392,800
 - B) \$732,000
 - C) \$439,200
 - D) \$292,800

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- 73) Nagle Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In October the company completed job O43G that consisted of 24,000 units of one of the company's standard products. No other jobs were in process or sold during the month. The job cost sheet for job O43G shows that the total cost for the job was \$928,800. During the month, 21,000 completed units from job O43G were sold. The cost of goods sold that would appear on the income statement for October is closest to:
- A) \$928,800
 - B) \$816,100
 - C) \$812,700
 - D) \$116,100
- 74) Nagle Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In October the company completed job O43G that consisted of 46,000 units of one of the company's standard products. No other jobs were in beginning finished goods inventory or work in process during the month. The job cost sheet for job O43G shows that the total cost for the job was \$2,286,200. During the month, 32,000 completed units from job O43G were sold. The finished goods inventory at the end of October is closest to:
- A) \$2,286,200
 - B) \$827,100
 - C) \$1,590,400
 - D) \$695,800
- 75) Nagle Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In October the company completed job O43G that consisted of 24,000 units of one of the company's standard products. No other jobs were in beginning finished goods inventory or work in process during the month. The job cost sheet for job O43G shows that the total cost for the job was \$928,800. During the month, 21,000 completed units from job O43G were sold. The finished goods inventory at the end of October is closest to:
- A) \$928,800
 - B) \$816,100
 - C) \$812,700
 - D) \$116,100

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- 76) Zander Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In July the company completed job F21X that consisted of 21,000 units of one of the company's standard products. No other jobs were in process or sold during the month. The job cost sheet for job F21X shows the following costs:

Beginning balance	\$ 44,100
Direct materials	\$ 564,900
Direct labor	\$ 195,300
Manufacturing overhead cost applied	\$ 315,000

During the month, 14,000 completed units from job F21X were sold. The cost of goods sold for July is closest to:

- A) \$1,119,300
- B) \$373,100
- C) \$743,400
- D) \$746,200

- 77) Zander Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In July the company completed job F21X that consisted of 21,000 units of one of the company's standard products. No other jobs were in beginning finished goods inventory or work in process during the month. The job cost sheet for job F21X shows the following costs:

Beginning balance	\$ 44,100
Direct materials	\$ 564,900
Direct labor	\$ 195,300
Manufacturing overhead cost applied	\$ 315,000

During the month, 14,000 completed units from job F21X were sold. The finished goods inventory at the end of July is closest to:

- A) \$1,119,300
- B) \$373,100
- C) \$743,400
- D) \$746,200

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78) Burrel Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In June the company completed job E08D that consisted of 13,000 units of one of the company's standard products. No other jobs were in process or sold during the month. The job cost sheet for job E08D shows that the job's total cost was \$850,200. During the month, 4,000 completed units from job E08D were sold. The cost of goods sold for June is closest to:

- A) \$259,200
- B) \$829,400
- C) \$261,600
- D) \$850,200

79) Burrel Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In June the company completed job E08D that consisted of 13,000 units of one of the company's standard products. No other jobs were in beginning finished goods inventory or work in process during the month. The job cost sheet for job E08D shows that the job's total cost was \$850,200. During the month, 4,000 completed units from job E08D were sold. The finished goods inventory at the end of June is closest to:

- A) \$588,600
- B) \$461,600
- C) \$261,600
- D) \$850,200

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80) Huang Aerospace Corporation manufactures aviation control panels in two departments, Fabrication and Assembly. In the Fabrication department, Huang uses a predetermined overhead rate of \$30 per machine-hour. In the Assembly department, Huang uses a predetermined overhead rate of \$12 per direct labor-hour. During the current year, Job number X2984 incurred the following number of hours in each department:

	Fabrication	Assembly
Machine-hours	40	12
Direct labor-hours	3	25

What is the total amount of manufacturing overhead that Huang should have applied to Job number X2984 during the current year?

- A) \$1,200
- B) \$1,500
- C) \$1,560
- D) \$1,734

Managerial Accounting Edition 18 by Garrison

- 81) Sargent Corporation applies overhead cost to jobs on the basis of 80% of direct labor cost. If Job 210 shows \$20,560 of manufacturing overhead cost applied, how much was the direct labor cost on the job?
- A) \$25,700
 - B) \$37,008
 - C) \$16,448
 - D) \$20,560
- 82) Sargent Corporation applies overhead cost to jobs on the basis of 80% of direct labor cost. If Job 210 shows \$10,000 of manufacturing overhead cost applied, how much was the direct labor cost on the job?
- A) \$12,500
 - B) \$11,000
 - C) \$8,000
 - D) \$10,000
- 83) Kreuzer Corporation is using a predetermined overhead rate of \$22.30 per machine-hour that was based on estimated total fixed manufacturing overhead of \$446,000 and 20,000 machine-hours for the period. The company incurred actual total fixed manufacturing overhead of \$409,000 and 18,200 total machine-hours during the period. The amount of manufacturing overhead that would have been applied to all jobs during the period is closest to:
- A) \$446,000
 - B) \$37,000
 - C) \$372,190
 - D) \$405,860

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- 84) Kavin Corporation uses a predetermined overhead rate base on machine-hours that it recalculates at the beginning of each year. The company has provided the following data for the most recent year.

Predetermined overhead rate	\$ 23.60 per machine-hour
Estimated total fixed manufacturing overhead from the beginning of the year	\$ 708,000
Estimated activity level from the beginning of the year	30,000 machine-hours
Actual total fixed manufacturing overhead	\$ 752,000
Actual activity level	28,100 machine-hours

The amount of manufacturing overhead that would have been applied to all jobs during the period is closest to:

- A) \$663,160
- B) \$708,000
- C) \$44,000
- D) \$704,373

- 85) Job 910 was recently completed. The following data have been recorded on its job cost sheet:

Direct materials	\$ 2,414
Direct labor-hours	74 labor-hours
Direct labor wage rate	\$ 17 per labor-hour
Machine-hours	137 machine-hours

The Corporation applies manufacturing overhead on the basis of machine-hours. The predetermined overhead rate is \$18 per machine-hour. The total cost that would be recorded on the job cost sheet for Job 910 would be:

- A) \$6,138
- B) \$3,462
- C) \$3,672
- D) \$6,978

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86) Job 910 was recently completed. The following data have been recorded on its job cost sheet:

Direct materials	\$ 3,193
Direct labor-hours	21 labor-hours
Direct labor wage rate	\$ 12 per labor-hour
Machine-hours	166 machine-hours

The Corporation applies manufacturing overhead on the basis of machine-hours. The predetermined overhead rate is \$15 per machine-hour. The total cost that would be recorded on the job cost sheet for Job 910 would be:

- A) \$3,220
- B) \$3,760
- C) \$5,935
- D) \$3,445

87) Grib Corporation uses a predetermined overhead rate based on direct labor cost to apply manufacturing overhead to jobs. The predetermined overhead rates for the year are 200% of direct labor cost for Department A and 50% of direct labor cost for Department B. Job 436, started and completed during the year, was charged with the following costs:

	Department A	Department B
Direct materials	\$ 50,000	\$ 10,000
Direct labor	?	\$ 60,000
Manufacturing overhead	\$ 80,000	?

The total manufacturing cost assigned to Job 436 was:

- A) \$360,000
- B) \$390,000
- C) \$270,000
- D) \$480,000

88) The following data have been recorded for recently completed Job 450 on its job cost sheet. Direct materials cost was \$2,118. A total of 40 direct labor-hours and 257 machine-hours were worked on the job. The direct labor wage rate is \$18 per labor-hour. The Corporation applies manufacturing overhead on the basis of machine-hours. The predetermined overhead rate is \$22 per machine-hour. The total cost for the job on its job cost sheet would be:

- A) \$5,448
- B) \$5,867
- C) \$10,637
- D) \$8,492

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- 89) The following data have been recorded for recently completed Job 450 on its job cost sheet. Direct materials cost was \$3,044. A total of 46 direct labor-hours and 104 machine-hours were worked on the job. The direct labor wage rate is \$15 per labor-hour. The Corporation applies manufacturing overhead on the basis of machine-hours. The predetermined overhead rate is \$13 per machine-hour. The total cost for the job on its job cost sheet would be:

A) \$4,332
 B) \$3,734
 C) \$3,072
 D) \$5,086

- 90) Dejarnette Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	80,000
Total fixed manufacturing overhead cost	\$ 416,000
Variable manufacturing overhead per machine-hour	\$ 3.10

The estimated total manufacturing overhead is closest to:

A) \$416,003
 B) \$248,000
 C) \$664,000
 D) \$416,000

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- 91) Dejarnette Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	80,000
Total fixed manufacturing overhead cost	\$ 416,000
Variable manufacturing overhead per machine-hour	\$ 3.10

The predetermined overhead rate is closest to:

A) \$8.30 per machine-hour
 B) \$11.40 per machine-hour
 C) \$5.20 per machine-hour
 D) \$3.10 per machine-hour

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- 92) Odonnel Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$36,000, variable manufacturing overhead of \$2.80 per direct labor-hour, and 10,000 direct labor-hours.

The estimated total manufacturing overhead is closest to:

- A) \$64,000
- B) \$36,000
- C) \$28,000
- D) \$36,003

- 93) Odonnel Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$36,000, variable manufacturing overhead of \$2.80 per direct labor-hour, and 10,000 direct labor-hours.

The predetermined overhead rate is closest to:

- A) \$2.80 per direct labor-hour
- B) \$6.40 per direct labor-hour
- C) \$3.60 per direct labor-hour
- D) \$9.20 per direct labor-hour

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94) Morataya Corporation has two manufacturing departments--Machining and Assembly. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Machining	Assembly	Total
Estimated total machine-hours (MHs)	7,000	3,000	10,000
Estimated total fixed manufacturing overhead cost	\$ 39,200	\$ 6,600	\$ 45,800
Estimated variable manufacturing overhead cost per MH	\$ 1.90	\$ 2.10	

During the most recent month, the company started and completed two jobs--Job B and Job G. There were no beginning inventories. Data concerning those two jobs follow:

	Job B	Job G
Direct materials	\$ 14,800	\$ 8,300
Direct labor cost	\$ 22,000	\$ 8,900
Machining machine-hours	4,800	2,200
Assembly machine-hours	1,200	1,800

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. That predetermined manufacturing overhead rate is closest to:

- A) \$4.00
- B) \$7.50
- C) \$4.58
- D) \$6.54

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95) Morataya Corporation has two manufacturing departments--Machining and Assembly. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Machining	Assembly	Total
Estimated total machine-hours (MHs)	7,000	3,000	10,000
Estimated total fixed manufacturing overhead cost	\$ 39,200	\$ 6,600	\$ 45,800
Estimated variable manufacturing overhead cost per MH	\$ 1.90	\$ 2.10	

During the most recent month, the company started and completed two jobs--Job B and Job G. There were no beginning inventories. Data concerning those two jobs follow:

	Job B	Job G
Direct materials	\$ 14,800	\$ 8,300
Direct labor cost	\$ 22,000	\$ 8,900
Machining machine-hours	4,800	2,200
Assembly machine-hours	1,200	1,800

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. The amount of manufacturing overhead applied to Job B is closest to:

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Note: Round your intermediate calculations to 2 decimal places.

- A) \$31,392
- B) \$27,480
- C) \$39,240
- D) \$7,848

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- 96) Morataya Corporation has two manufacturing departments--Machining and Assembly. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Machining	Assembly	Total
Estimated total machine-hours (MHs)	7,000	3,000	10,000
Estimated total fixed manufacturing overhead cost	\$ 39,200	\$ 6,600	\$ 45,800
Estimated variable manufacturing overhead cost per MH	\$ 1.90	\$ 2.10	

During the most recent month, the company started and completed two jobs--Job B and Job G. There were no beginning inventories. Data concerning those two jobs follow:

	Job B	Job G
Direct materials	\$ 14,800	\$ 8,300
Direct labor cost	\$ 22,000	\$ 8,900
Machining machine-hours	4,800	2,200
Assembly machine-hours	1,200	1,800

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. The amount of manufacturing overhead applied to Job G is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$14,388
- B) \$26,160
- C) \$11,772
- D) \$18,320

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97) Housholder Corporation uses a predetermined overhead rate base on machine-hours that it recalculates at the beginning of each year. The company has provided the following data for the most recent year.

Estimated total fixed manufacturing overhead \$ 310,000
from the beginning of the year

Estimated activity level from the beginning of the year 20,000 machine-hours

Actual total fixed manufacturing overhead \$ 338,000

Actual activity level 18,300 machine-hours

The predetermined overhead rate is closest to:

- A) \$18.47
- B) \$16.94
- C) \$16.90
- D) \$15.50

98) Housholder Corporation uses a predetermined overhead rate base on machine-hours that it recalculates at the beginning of each year. The company has provided the following data for the most recent year.

Estimated total fixed manufacturing overhead \$ 310,000
from the beginning of the year

Estimated activity level from the beginning of the year 20,000 machine-hours

Actual total fixed manufacturing overhead \$ 338,000

Actual activity level 18,300 machine-hours

The amount of manufacturing overhead that would have been applied to all jobs during the period is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$28,000
- B) \$309,270
- C) \$310,000
- D) \$283,650

Managerial Accounting Edition 18 by Garrison

- 99) Gerstein Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$90,000, variable manufacturing overhead of \$3.70 per direct labor-hour, and 50,000 direct labor-hours. The company recently completed Job M800 which required 150 direct labor-hours.

The estimated total manufacturing overhead is closest to:

- A) \$90,000
- B) \$275,000
- C) \$185,000
- D) \$90,004

- 100) Gerstein Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$90,000, variable manufacturing overhead of \$3.70 per direct labor-hour, and 50,000 direct labor-hours. The company recently completed Job M800 which required 150 direct labor-hours.

The predetermined overhead rate is closest to:

- A) \$1.80 per direct labor-hour
- B) \$5.50 per direct labor-hour
- C) \$9.20 per direct labor-hour
- D) \$3.70 per direct labor-hour

- 101) Gerstein Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$90,000, variable manufacturing overhead of \$3.70 per direct labor-hour, and 50,000 direct labor-hours. The company recently completed Job M800 which required 150 direct labor-hours.

The amount of overhead applied to Job M800 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$270
- B) \$1,380
- C) \$825
- D) \$555

Managerial Accounting Edition 18 by Garrison

- 102) Krier Corporation uses a predetermined overhead rate that was based on estimated total fixed manufacturing overhead of \$738,000 and 30,000 direct labor-hours for the period. The company incurred actual total fixed manufacturing overhead of \$792,000 and 31,500 total direct labor-hours during the period.

The predetermined overhead rate is closest to:

- A) \$26.40
- B) \$25.14
- C) \$23.43
- D) \$24.60

- 103) Krier Corporation uses a predetermined overhead rate that was based on estimated total fixed manufacturing overhead of \$738,000 and 30,000 direct labor-hours for the period. The company incurred actual total fixed manufacturing overhead of \$792,000 and 31,500 total direct labor-hours during the period.

The amount of manufacturing overhead that would have been applied to all jobs during the period is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$831,600
- B) \$54,000
- C) \$774,900
- D) \$738,000

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- 104) Harootunian Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	80,000
Total fixed manufacturing overhead cost	\$ 312,000
Variable manufacturing overhead per machine-hour	\$ 2.10

Recently, Job T629 was completed with the following characteristics:

Number of units in the job	50
Total machine-hours	200

The estimated total manufacturing overhead is closest to:

- A) \$168,000
- B) \$312,002
- C) \$312,000
- D) \$480,000

Managerial Accounting Edition 18 by Garrison

- 105) Harootunian Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	80,000
Total fixed manufacturing overhead cost	\$ 312,000
Variable manufacturing overhead per machine-hour	\$ 2.10

Recently, Job T629 was completed with the following characteristics:

Number of units in the job	50
Total machine-hours	200

The predetermined overhead rate is closest to:

- A) \$8.10 per machine-hour
- B) \$2.10 per machine-hour
- C) \$3.90 per machine-hour
- D) \$6.00 per machine-hour

- 106) Harootunian Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	80,000
Total fixed manufacturing overhead cost	\$ 312,000
Variable manufacturing overhead per machine-hour	\$ 2.10

Recently, Job T629 was completed with the following characteristics:

Number of units in the job	50
Total machine-hours	200

The amount of overhead applied to Job T629 is closest to:

- A) \$1,620
- B) \$780
- C) \$1,200
- D) \$420

Managerial Accounting Edition 18 by Garrison

- 107) Dehner Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on the following data:

Total direct labor-hours	40,000
Total fixed manufacturing overhead cost	\$ 96,000
Variable manufacturing overhead per direct labor-hour	\$ 3.00

Recently, Job P951 was completed with the following characteristics:

Number of units in the job	20
Total direct labor-hours	100
Direct materials	\$ 755
Direct labor cost	\$ 4,000

The estimated total manufacturing overhead is closest to:

- A) \$120,000
- B) \$96,003
- C) \$96,000
- D) \$216,000

- 108) Dehner Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on the following data:

Total direct labor-hours	TBEXAM.COM 40,000
Total fixed manufacturing overhead cost	\$ 96,000
Variable manufacturing overhead per direct labor-hour	\$ 3.00

Recently, Job P951 was completed with the following characteristics:

Number of units in the job	20
Total direct labor-hours	100
Direct materials	\$ 755
Direct labor cost	\$ 4,000

The predetermined overhead rate is closest to:

- A) \$2.40 per direct labor-hour
- B) \$3.00 per direct labor-hour
- C) \$8.40 per direct labor-hour
- D) \$5.40 per direct labor-hour

Managerial Accounting Edition 18 by Garrison

- 109) Dehner Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on the following data:

Total direct labor-hours	40,000
Total fixed manufacturing overhead cost	\$ 96,000
Variable manufacturing overhead per direct labor-hour	\$ 3.00

Recently, Job P951 was completed with the following characteristics:

Number of units in the job	20
Total direct labor-hours	100
Direct materials	\$ 755
Direct labor cost	\$ 4,000

The amount of overhead applied to Job P951 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$840
- B) \$300
- C) \$540
- D) \$240

- 110) Dehner Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on the following data:

Total direct labor-hours	78,000
Total fixed manufacturing overhead cost	\$ 460,200
Variable manufacturing overhead per direct labor-hour	\$ 5.00

Recently, Job P951 was completed with the following characteristics:

Number of units in the job	50
Total direct labor-hours	100
Direct materials	\$ 710
Direct labor cost	\$ 7,800

The total job cost for Job P951 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$8,890
- B) \$8,510
- C) \$1,800
- D) \$9,600

Managerial Accounting Edition 18 by Garrison

- 111) Dehner Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on the following data:

Total direct labor-hours	40,000
Total fixed manufacturing overhead cost	\$ 96,000
Variable manufacturing overhead per direct labor-hour	\$ 3.00

Recently, Job P951 was completed with the following characteristics:

Number of units in the job	20
Total direct labor-hours	100
Direct materials	\$ 755
Direct labor cost	\$ 4,000

The total job cost for Job P951 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$4,540
- B) \$4,755
- C) \$1,295
- D) \$5,295

- 112) Dehner Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on the following data:

Total direct labor-hours	105,000
Total fixed manufacturing overhead cost	\$ 399,000
Variable manufacturing overhead per direct labor-hour	\$ 2.00

Recently, Job P951 was completed with the following characteristics:

Number of units in the job	50
Total direct labor-hours	100
Direct materials	\$ 730
Direct labor cost	\$ 10,500

The unit product cost for Job P951 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$290.00
- B) \$236.20
- C) \$136.20
- D) \$118.10

Managerial Accounting Edition 18 by Garrison

- 113) Dehner Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on the following data:

Total direct labor-hours	40,000
Total fixed manufacturing overhead cost	\$ 96,000
Variable manufacturing overhead per direct labor-hour	\$ 3.00

Recently, Job P951 was completed with the following characteristics:

Number of units in the job	20
Total direct labor-hours	100
Direct materials	\$ 755
Direct labor cost	\$ 4,000

The unit product cost for Job P951 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$237.75
- B) \$264.75
- C) \$64.75
- D) \$52.95

- 114) Branin Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$160,000, variable manufacturing overhead of \$3.40 per direct labor-hour, and 80,000 direct labor-hours. The company has provided the following data concerning Job A578 which was recently completed:

Total direct labor-hours	250
Direct materials	\$ 715
Direct labor cost	\$ 9,000

The estimated total manufacturing overhead is closest to:

- A) \$272,000
- B) \$160,000
- C) \$432,000
- D) \$160,003

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- 115) Branin Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$160,000, variable manufacturing overhead of \$3.40 per direct labor-hour, and 80,000 direct labor-hours. The company has provided the following data concerning Job A578 which was recently completed:

Total direct labor-hours	250
Direct materials	\$ 715
Direct labor cost	\$ 9,000

The predetermined overhead rate is closest to:

- A) \$8.80 per direct labor-hour
- B) \$2.00 per direct labor-hour
- C) \$3.40 per direct labor-hour
- D) \$5.40 per direct labor-hour

- 116) Branin Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$160,000, variable manufacturing overhead of \$3.40 per direct labor-hour, and 80,000 direct labor-hours. The company has provided the following data concerning Job A578 which was recently completed: TBEXAM.COM

Total direct labor-hours	250
Direct materials	\$ 715
Direct labor cost	\$ 9,000

The amount of overhead applied to Job A578 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$500
- B) \$1,350
- C) \$2,200
- D) \$850

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- 117) Branin Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$160,000, variable manufacturing overhead of \$3.40 per direct labor-hour, and 80,000 direct labor-hours. The company has provided the following data concerning Job A578 which was recently completed:

Total direct labor-hours	250
Direct materials	\$ 715
Direct labor cost	\$ 9,000

The total job cost for Job A578 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$11,065
- B) \$10,350
- C) \$2,065
- D) \$9,715

- 118) Spang Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	20,000
Total fixed manufacturing overhead cost	\$ 176,000
Variable manufacturing overhead per machine-hour	\$ 2.20

Recently, Job P505 was completed with the following characteristics:

Total machine-hours	200
Direct materials	\$ 540
Direct labor cost	\$ 7,200

The amount of overhead applied to Job P505 is closest to:

- A) \$2,200
- B) \$1,760
- C) \$2,640
- D) \$440

Managerial Accounting Edition 18 by Garrison

- 119) Spang Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	20,000
Total fixed manufacturing overhead cost	\$ 176,000
Variable manufacturing overhead per machine-hour	\$ 2.20

Recently, Job P505 was completed with the following characteristics:

Total machine-hours	200
Direct materials	\$ 540
Direct labor cost	\$ 7,200

The total job cost for Job P505 is closest to:

- A) \$9,400
- B) \$9,940
- C) \$7,740
- D) \$2,740

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- 120) Opunui Corporation has two manufacturing departments--Molding and Finishing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Molding	Finishing	Total
Estimated total machine-hours (MHs)	3,250	1,750	5,000
Estimated total fixed manufacturing overhead cost	\$ 25,000	\$ 4,800	\$ 29,800
Estimated variable manufacturing overhead cost per MH	\$ 1.50	\$ 3.00	

During the most recent month, the company started and completed two jobs--Job A and Job M. There were no beginning inventories. Data concerning those two jobs follow:

	Job A	Job M
Direct materials	\$ 16,500	\$ 9,800
Direct labor cost	\$ 23,200	\$ 10,200
Molding machine-hours	1,250	2,000
Finishing machine-hours	1,250	500

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. The total manufacturing cost assigned to Job M is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$19,975
- B) \$10,200
- C) \$39,975
- D) \$9,800

TBEXAM.COM

Managerial Accounting Edition 18 by Garrison

- 121) Opunui Corporation has two manufacturing departments--Molding and Finishing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Molding	Finishing	Total
Estimated total machine-hours (MHs)	4,000	1,000	5,000
Estimated total fixed manufacturing overhead cost	\$ 19,600	\$ 2,400	\$ 22,000
Estimated variable manufacturing overhead cost per MH	\$ 1.10	\$ 2.10	

During the most recent month, the company started and completed two jobs--Job A and Job M. There were no beginning inventories. Data concerning those two jobs follow:

	Job A	Job M
Direct materials	\$ 13,600	\$ 7,500
Direct labor cost	\$ 20,700	\$ 7,400
Molding machine-hours	2,700	1,300
Finishing machine-hours	400	600

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. The total manufacturing cost assigned to Job M is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$10,830
- B) \$7,400
- C) \$25,730
- D) \$7,500

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- 122) Opunui Corporation has two manufacturing departments--Molding and Finishing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Molding	Finishing	Total
Estimated total machine-hours (MHs)	6,500	3,500	10,000
Estimated total fixed manufacturing overhead cost	\$ 18,000	\$ 5,500	\$ 23,500
Estimated variable manufacturing overhead cost per MH	\$ 1.00	\$ 2.00	

During the most recent month, the company started and completed two jobs--Job A and Job M. There were no beginning inventories. Data concerning those two jobs follow:

	Job A	Job M
Direct materials	\$ 16,800	\$ 10,600
Direct labor cost	\$ 23,700	\$ 10,300
Molding machine-hours	2,500	4,000
Finishing machine-hours	2,500	1,000

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours and uses a markup of 30% on manufacturing cost to establish selling prices. The calculated selling price for Job A is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$59,000
- B) \$76,700
- C) \$96,000
- D) \$17,700

Managerial Accounting Edition 18 by Garrison

- 123) Opunui Corporation has two manufacturing departments--Molding and Finishing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Molding	Finishing	Total
Estimated total machine-hours (MHs)	4,000	1,000	5,000
Estimated total fixed manufacturing overhead cost	\$ 19,600	\$ 2,400	\$ 22,000
Estimated variable manufacturing overhead cost per MH	\$ 1.10	\$ 2.10	

During the most recent month, the company started and completed two jobs--Job A and Job M. There were no beginning inventories. Data concerning those two jobs follow:

	Job A	Job M
Direct materials	\$ 13,600	\$ 7,500
Direct labor cost	\$ 20,700	\$ 7,400
Molding machine-hours	2,700	1,300
Finishing machine-hours	400	600

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours and uses a markup of 40% on manufacturing cost to establish selling prices. The calculated selling price for Job A is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$51,970
- B) \$72,758
- C) \$80,034
- D) \$20,788

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- 124) Lueckenhoff Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$497,000, variable manufacturing overhead of \$2.40 per direct labor-hour, and 70,000 direct labor-hours. The company has provided the following data concerning Job T498 which was recently completed:

Number of units in the job	40
Total direct labor-hours	80
Direct materials	\$ 950
Direct labor cost	\$ 2,720

The estimated total manufacturing overhead is closest to:

- A) \$665,000
- B) \$497,002
- C) \$497,000
- D) \$168,000

- 125) Lueckenhoff Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$497,000, variable manufacturing overhead of \$2.40 per direct labor-hour, and 70,000 direct labor-hours. The company has provided the following data concerning Job T498 which was recently completed:

Number of units in the job	40
Total direct labor-hours	80
Direct materials	\$ 950
Direct labor cost	\$ 2,720

The predetermined overhead rate is closest to:

- A) \$11.90 per direct labor-hour
- B) \$7.10 per direct labor-hour
- C) \$9.50 per direct labor-hour
- D) \$2.40 per direct labor-hour

Managerial Accounting Edition 18 by Garrison

- 126) Lueckenhoff Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$497,000, variable manufacturing overhead of \$2.40 per direct labor-hour, and 70,000 direct labor-hours. The company has provided the following data concerning Job T498 which was recently completed:

Number of units in the job	40
Total direct labor-hours	80
Direct materials	\$ 950
Direct labor cost	\$ 2,720

The amount of overhead applied to Job T498 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$568
- B) \$192
- C) \$760
- D) \$952

- 127) Lueckenhoff Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$497,000, variable manufacturing overhead of \$2.40 per direct labor-hour, and 70,000 direct labor-hours. The company has provided the following data concerning Job T498 which was recently completed:

Number of units in the job	40
Total direct labor-hours	80
Direct materials	\$ 950
Direct labor cost	\$ 2,720

The total job cost for Job T498 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$4,430
- B) \$3,670
- C) \$1,710
- D) \$3,480

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- 128) Lueckenhoff Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$497,000, variable manufacturing overhead of \$2.40 per direct labor-hour, and 70,000 direct labor-hours. The company has provided the following data concerning Job T498 which was recently completed:

Number of units in the job	40
Total direct labor-hours	80
Direct materials	\$ 950
Direct labor cost	\$ 2,720

The unit product cost for Job T498 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$55.38
- B) \$42.75
- C) \$91.75
- D) \$110.75

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Managerial Accounting Edition 18 by Garrison

- 129) Nielsen Corporation has two manufacturing departments--Machining and Assembly. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Machining	Assembly	Total
Estimated total machine-hours (MHs)	1,000	4,000	5,000
Estimated total fixed manufacturing overhead cost	\$ 4,700	\$ 10,800	\$ 15,500
Estimated variable manufacturing overhead cost per MH	\$ 1.20	\$ 2.20	

During the most recent month, the company started and completed two jobs--Job F and Job M. There were no beginning inventories. Data concerning those two jobs follow:

	Job F	Job M
Direct materials	\$ 13,000	\$ 7,400
Direct labor cost	\$ 20,400	\$ 8,800
Machining machine-hours	700	300
Assembly machine-hours	1,600	2,400

Assume that the company uses a *plantwide* predetermined manufacturing overhead rate based on machine-hours. The total manufacturing cost assigned to Job F is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$13,000
- B) \$20,400
- C) \$45,130
- D) \$11,730

TBEXAM.COM

Managerial Accounting Edition 18 by Garrison

- 130) Nielsen Corporation has two manufacturing departments--Machining and Assembly. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Machining	Assembly	Total
Estimated total machine-hours (MHs)	1,000	4,000	5,000
Estimated total fixed manufacturing overhead cost	\$ 4,700	\$ 10,800	\$ 15,500
Estimated variable manufacturing overhead cost per MH	\$ 1.20	\$ 2.20	

During the most recent month, the company started and completed two jobs--Job F and Job M. There were no beginning inventories. Data concerning those two jobs follow:

	Job F	Job M
Direct materials	\$ 13,000	\$ 7,400
Direct labor cost	\$ 20,400	\$ 8,800
Machining machine-hours	700	300
Assembly machine-hours	1,600	2,400

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours and uses a markup of 40% on manufacturing cost to establish selling prices. The calculated selling price for Job M is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$46,154
- B) \$41,958
- C) \$29,970
- D) \$11,988

Managerial Accounting Edition 18 by Garrison

- 131) Decorte Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on the following data:

Total direct labor-hours	10,000
Total fixed manufacturing overhead cost	\$ 33,000
Variable manufacturing overhead per direct labor-hour	\$ 2.50

Recently, Job K332 was completed with the following characteristics:

Number of units in the job	70
Total direct labor-hours	140
Direct materials	\$ 455
Direct labor cost	\$ 5,320

The amount of overhead applied to Job K332 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$812
- B) \$350
- C) \$462
- D) \$1,162

- 132) Decorte Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on the following data:

Total direct labor-hours	10,000
Total fixed manufacturing overhead cost	\$ 33,000
Variable manufacturing overhead per direct labor-hour	\$ 2.50

Recently, Job K332 was completed with the following characteristics:

Number of units in the job	70
Total direct labor-hours	140
Direct materials	\$ 455
Direct labor cost	\$ 5,320

The total job cost for Job K332 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$5,775
- B) \$6,132
- C) \$6,587
- D) \$1,267

Managerial Accounting Edition 18 by Garrison

- 133) Decorte Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on the following data:

Total direct labor-hours	10,000
Total fixed manufacturing overhead cost	\$ 33,000
Variable manufacturing overhead per direct labor-hour	\$ 2.50

Recently, Job K332 was completed with the following characteristics:

Number of units in the job	70
Total direct labor-hours	140
Direct materials	\$ 455
Direct labor cost	\$ 5,320

The unit product cost for Job K332 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$94.10
- B) \$18.10
- C) \$82.50
- D) \$47.05

- 134) Beans Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$162,000, variable manufacturing overhead of \$2.80 per direct labor-hour, and 60,000 direct labor-hours.

Recently, Job K818 was completed with the following characteristics:

Number of units in the job	10
Total direct labor-hours	50
Direct materials	\$ 920
Direct labor cost	\$ 1,400

The estimated total manufacturing overhead is closest to:

- A) \$330,000
- B) \$162,000
- C) \$168,000
- D) \$162,003

Managerial Accounting Edition 18 by Garrison

- 135) Beans Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$162,000, variable manufacturing overhead of \$2.80 per direct labor-hour, and 60,000 direct labor-hours.

Recently, Job K818 was completed with the following characteristics:

Number of units in the job	10
Total direct labor-hours	50
Direct materials	\$ 920
Direct labor cost	\$ 1,400

The predetermined overhead rate is closest to:

- A) \$5.50 per direct labor-hour
- B) \$8.30 per direct labor-hour
- C) \$2.80 per direct labor-hour
- D) \$2.70 per direct labor-hour

- 136) Beans Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$162,000, variable manufacturing overhead of \$2.80 per direct labor-hour, and 60,000 direct labor-hours.

Recently, Job K818 was completed with the following characteristics:

Number of units in the job	TBEXAM.COM	10
Total direct labor-hours		50
Direct materials		\$ 920
Direct labor cost		\$ 1,400

The amount of overhead applied to Job K818 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$135
- B) \$140
- C) \$415
- D) \$275

Managerial Accounting Edition 18 by Garrison

- 137) Beans Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$162,000, variable manufacturing overhead of \$2.80 per direct labor-hour, and 60,000 direct labor-hours.

Recently, Job K818 was completed with the following characteristics:

Number of units in the job	10
Total direct labor-hours	50
Direct materials	\$ 920
Direct labor cost	\$ 1,400

The total job cost for Job K818 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$1,675
- B) \$2,595
- C) \$1,195
- D) \$2,320

- 138) Beans Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$162,000, variable manufacturing overhead of \$2.80 per direct labor-hour, and 60,000 direct labor-hours.

Recently, Job K818 was completed with the following characteristics:

Number of units in the job	10
Total direct labor-hours	50
Direct materials	\$ 920
Direct labor cost	\$ 1,400

The unit product cost for Job K818 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$51.90
- B) \$259.50
- C) \$232.00
- D) \$119.50

Managerial Accounting Edition 18 by Garrison

- 139) Beans Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$162,000, variable manufacturing overhead of \$2.80 per direct labor-hour, and 60,000 direct labor-hours.

Recently, Job K818 was completed with the following characteristics:

Number of units in the job	10
Total direct labor-hours	50
Direct materials	\$ 920
Direct labor cost	\$ 1,400

If the company marks up its unit product costs by 40% then the selling price for a unit in Job K818 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$363.30
- B) \$103.80
- C) \$383.30
- D) \$324.80

- 140) Lupo Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	TBEXAM.COM	30,000
Total fixed manufacturing overhead cost		\$ 252,000
Variable manufacturing overhead per machine-hour		\$ 2.10

Recently, Job T687 was completed with the following characteristics:

Number of units in the job	10
Total machine-hours	30
Direct materials	\$ 675
Direct labor cost	\$ 1,050

The estimated total manufacturing overhead is closest to:

- A) \$315,000
- B) \$252,000
- C) \$252,002
- D) \$63,000

Managerial Accounting Edition 18 by Garrison

- 141) Lupo Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	30,000
Total fixed manufacturing overhead cost	\$ 252,000
Variable manufacturing overhead per machine-hour	\$ 2.10

Recently, Job T687 was completed with the following characteristics:

Number of units in the job	10
Total machine-hours	30
Direct materials	\$ 675
Direct labor cost	\$ 1,050

The predetermined overhead rate is closest to:

- A) \$12.60 per machine-hour
- B) \$10.50 per machine-hour
- C) \$8.40 per machine-hour
- D) \$2.10 per machine-hour

- 142) Lupo Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	TBEXAM.COM 30,700
Total fixed manufacturing overhead cost	\$ 337,700
Variable manufacturing overhead per machine-hour	\$ 4

Recently, Job T687 was completed with the following characteristics:

Number of units in the job	10
Total machine-hours	20
Direct materials	\$ 575
Direct labor cost	\$ 1,150

The amount of overhead applied to Job T687 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$300.00
- B) \$337.70
- C) \$381.00
- D) \$60.00

Managerial Accounting Edition 18 by Garrison

- 143) Lupo Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	30,000
Total fixed manufacturing overhead cost	\$ 252,000
Variable manufacturing overhead per machine-hour	\$ 2.10

Recently, Job T687 was completed with the following characteristics:

Number of units in the job	10
Total machine-hours	30
Direct materials	\$ 675
Direct labor cost	\$ 1,050

The amount of overhead applied to Job T687 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$315
- B) \$252
- C) \$378
- D) \$63

- 144) Lupo Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	30,300
Total fixed manufacturing overhead cost	\$ 575,700
Variable manufacturing overhead per machine-hour	\$ 4

Recently, Job T687 was completed with the following characteristics:

Number of units in the job	10
Total machine-hours	30
Direct materials	\$ 730
Direct labor cost	\$ 1,460

The total job cost for Job T687 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$2,150
- B) \$2,190
- C) \$1,420
- D) \$2,880

Managerial Accounting Edition 18 by Garrison

- 145) Lupo Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	30,000
Total fixed manufacturing overhead cost	\$ 252,000
Variable manufacturing overhead per machine-hour	\$ 2.10

Recently, Job T687 was completed with the following characteristics:

Number of units in the job	10
Total machine-hours	30
Direct materials	\$ 675
Direct labor cost	\$ 1,050

The total job cost for Job T687 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$1,365
- B) \$1,725
- C) \$990
- D) \$2,040

- 146) Lupo Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	32,800
Total fixed manufacturing overhead cost	\$ 164,000
Variable manufacturing overhead per machine-hour	\$ 5

Recently, Job T687 was completed with the following characteristics:

Number of units in the job	10
Total machine-hours	30
Direct materials	\$ 745
Direct labor cost	\$ 1,490

The unit product cost for Job T687 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$104.50
- B) \$84.50
- C) \$223.50
- D) \$253.50

Managerial Accounting Edition 18 by Garrison

- 147) Lupo Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	30,000
Total fixed manufacturing overhead cost	\$ 252,000
Variable manufacturing overhead per machine-hour	\$ 2.10

Recently, Job T687 was completed with the following characteristics:

Number of units in the job	10
Total machine-hours	30
Direct materials	\$ 675
Direct labor cost	\$ 1,050

The unit product cost for Job T687 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$99.00
- B) \$68.00
- C) \$172.50
- D) \$204.00

- 148) Lupo Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	30,300
Total fixed manufacturing overhead cost	\$ 575,700
Variable manufacturing overhead per machine-hour	\$ 4.00

Recently, Job T687 was completed with the following characteristics:

Number of units in the job	10
Total machine-hours	30
Direct materials	\$ 730
Direct labor cost	\$ 1,460

If the company marks up its unit product costs by 40% then the selling price for a unit in Job T687 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$115.20
- B) \$667.00
- C) \$403.20
- D) \$306.60

Managerial Accounting Edition 18 by Garrison

- 149) Lupo Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	30,000
Total fixed manufacturing overhead cost	\$ 252,000
Variable manufacturing overhead per machine-hour	\$ 2.10

Recently, Job T687 was completed with the following characteristics:

Number of units in the job	10
Total machine-hours	30
Direct materials	\$ 675
Direct labor cost	\$ 1,050

If the company marks up its unit product costs by 40% then the selling price for a unit in Job T687 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$81.60
- B) \$305.60
- C) \$285.60
- D) \$241.50

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Managerial Accounting Edition 18 by Garrison

- 150) Ronson Corporation has two manufacturing departments--Casting and Customizing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Casting	Customizing	Total
Estimated total machine-hours (MHs)	5,000	5,000	10,000
Estimated total fixed manufacturing overhead cost	\$ 27,500	\$ 10,500	\$ 38,000
Estimated variable manufacturing overhead cost per MH	\$ 1.70	\$ 2.60	

During the most recent month, the company started and completed two jobs--Job C and Job G. There were no beginning inventories. Data concerning those two jobs follow:

	Job C	Job G
Direct materials	\$ 10,600	\$ 6,800
Direct labor cost	\$ 23,700	\$ 7,900
Casting machine-hours	3,400	1,600
Customizing machine-hours	2,000	3,000

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. The amount of manufacturing overhead applied to Job C is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$32,130
- B) \$11,900
- C) \$20,230
- D) \$20,520

Managerial Accounting Edition 18 by Garrison

- 151) Ronson Corporation has two manufacturing departments--Casting and Customizing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Casting	Customizing	Total
Estimated total machine-hours (MHs)	5,000	5,000	10,000
Estimated total fixed manufacturing overhead cost	\$ 27,500	\$ 10,500	\$ 38,000
Estimated variable manufacturing overhead cost per MH	\$ 1.70	\$ 2.60	

During the most recent month, the company started and completed two jobs--Job C and Job G. There were no beginning inventories. Data concerning those two jobs follow:

	Job C	Job G
Direct materials	\$ 10,600	\$ 6,800
Direct labor cost	\$ 23,700	\$ 7,900
Casting machine-hours	3,400	1,600
Customizing machine-hours	2,000	3,000

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. The total manufacturing cost assigned to Job G is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$42,070
- B) \$27,370
- C) \$6,800
- D) \$7,900

TBEXAM.COM

Managerial Accounting Edition 18 by Garrison

- 152) Sivret Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	80,000
Total fixed manufacturing overhead cost	\$ 624,000
Variable manufacturing overhead per machine-hour	\$ 3.10

Recently, Job M598 was completed with the following characteristics:

Number of units in the job	60
Total machine-hours	300
Direct materials	\$ 645
Direct labor cost	\$ 9,000

The amount of overhead applied to Job M598 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$930
- B) \$4,200
- C) \$2,340
- D) \$3,270

- 153) Sivret Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	80,000
Total fixed manufacturing overhead cost	\$ 624,000
Variable manufacturing overhead per machine-hour	\$ 3.10

Recently, Job M598 was completed with the following characteristics:

Number of units in the job	60
Total machine-hours	300
Direct materials	\$ 645
Direct labor cost	\$ 9,000

The total job cost for Job M598 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$12,270
- B) \$9,645
- C) \$3,915
- D) \$12,915

Managerial Accounting Edition 18 by Garrison

- 154) Sivret Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	80,000
Total fixed manufacturing overhead cost	\$ 624,000
Variable manufacturing overhead per machine-hour	\$ 3.10

Recently, Job M598 was completed with the following characteristics:

Number of units in the job	60
Total machine-hours	300
Direct materials	\$ 645
Direct labor cost	\$ 9,000

The unit product cost for Job M598 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$65.25
- B) \$160.75
- C) \$215.25
- D) \$43.05

- 155) Sivret Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	80,000
Total fixed manufacturing overhead cost	\$ 624,000
Variable manufacturing overhead per machine-hour	\$ 3.10

Recently, Job M598 was completed with the following characteristics:

Number of units in the job	60
Total machine-hours	300
Direct materials	\$ 645
Direct labor cost	\$ 9,000

If the company marks up its unit product costs by 40% then the selling price for a unit in Job M598 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$321.35
- B) \$225.05
- C) \$86.10
- D) \$301.35

Managerial Accounting Edition 18 by Garrison

- 156) Levron Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$58,000, variable manufacturing overhead of \$2.00 per machine-hour, and 20,000 machine-hours. The company has provided the following data concerning Job P978 which was recently completed:

Number of units in the job	20
Total machine-hours	80
Direct materials	\$ 500
Direct labor cost	\$ 2,640

The predetermined overhead rate is closest to:

- A) \$2.90 per machine-hour
- B) \$2.00 per machine-hour
- C) \$4.90 per machine-hour
- D) \$6.90 per machine-hour

- 157) Levron Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$58,000, variable manufacturing overhead of \$2.00 per machine-hour, and 20,000 machine-hours. The company has provided the following data concerning Job P978 which was recently completed:

Number of units in the job	20
Total machine-hours	80
Direct materials	\$ 500
Direct labor cost	\$ 2,640

The amount of overhead applied to Job P978 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$232
- B) \$160
- C) \$392
- D) \$552

Managerial Accounting Edition 18 by Garrison

- 158) Levron Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$58,000, variable manufacturing overhead of \$2.00 per machine-hour, and 20,000 machine-hours. The company has provided the following data concerning Job P978 which was recently completed:

Number of units in the job	20
Total machine-hours	80
Direct materials	\$ 500
Direct labor cost	\$ 2,640

The total job cost for Job P978 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$3,140
- B) \$892
- C) \$3,532
- D) \$3,032

- 159) Levron Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$58,000, variable manufacturing overhead of \$2.00 per machine-hour, and 20,000 machine-hours. The company has provided the following data concerning Job P978 which was recently completed:

Number of units in the job	20
Total machine-hours	80
Direct materials	\$ 500
Direct labor cost	\$ 2,640

The unit product cost for Job P978 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$176.60
- B) \$157.00
- C) \$44.60
- D) \$44.15

Managerial Accounting Edition 18 by Garrison

- 160) Levron Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$58,000, variable manufacturing overhead of \$2.00 per machine-hour, and 20,000 machine-hours. The company has provided the following data concerning Job P978 which was recently completed:

Number of units in the job	20
Total machine-hours	80
Direct materials	\$ 500
Direct labor cost	\$ 2,640

If the company marks up its unit product costs by 30% then the selling price for a unit in Job P978 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$249.58
- B) \$229.58
- C) \$204.10
- D) \$52.98

- 161) Bolander Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	70,000
Total fixed manufacturing overhead cost	\$ 294,000
Variable manufacturing overhead per machine-hour	\$ 2.30

Recently, Job M825 was completed with the following characteristics:

Number of units in the job	20
Total machine-hours	80
Direct materials	\$ 665
Direct labor cost	\$ 1,840

The predetermined overhead rate is closest to:

- A) \$8.80 per machine-hour
- B) \$6.50 per machine-hour
- C) \$2.30 per machine-hour
- D) \$4.20 per machine-hour

Managerial Accounting Edition 18 by Garrison

- 162) Bolander Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	70,000
Total fixed manufacturing overhead cost	\$ 294,000
Variable manufacturing overhead per machine-hour	\$ 2.30

Recently, Job M825 was completed with the following characteristics:

Number of units in the job	20
Total machine-hours	80
Direct materials	\$ 665
Direct labor cost	\$ 1,840

The amount of overhead applied to Job M825 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$184
- B) \$520
- C) \$704
- D) \$336

- 163) Bolander Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	70,000
Total fixed manufacturing overhead cost	\$ 294,000
Variable manufacturing overhead per machine-hour	\$ 2.30

Recently, Job M825 was completed with the following characteristics:

Number of units in the job	20
Total machine-hours	80
Direct materials	\$ 665
Direct labor cost	\$ 1,840

The total job cost for Job M825 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$2,360
- B) \$2,505
- C) \$1,185
- D) \$3,025

Managerial Accounting Edition 18 by Garrison

- 164) Bolander Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	70,000
Total fixed manufacturing overhead cost	\$ 294,000
Variable manufacturing overhead per machine-hour	\$ 2.30

Recently, Job M825 was completed with the following characteristics:

Number of units in the job	20
Total machine-hours	80
Direct materials	\$ 665
Direct labor cost	\$ 1,840

The unit product cost for Job M825 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$37.81
- B) \$59.25
- C) \$151.25
- D) \$125.25

- 165) Bolander Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	70,000
Total fixed manufacturing overhead cost	\$ 294,000
Variable manufacturing overhead per machine-hour	\$ 2.30

Recently, Job M825 was completed with the following characteristics:

Number of units in the job	20
Total machine-hours	80
Direct materials	\$ 665
Direct labor cost	\$ 1,840

If the company marks up its unit product costs by 40% then the selling price for a unit in Job M825 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$60.50
- B) \$175.35
- C) \$211.75
- D) \$231.75

Managerial Accounting Edition 18 by Garrison

- 166) Cull Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$462,000, variable manufacturing overhead of \$2.20 per machine-hour, and 60,000 machine-hours. The company has provided the following data concerning Job X455 which was recently completed:

Number of units in the job	20
Total machine-hours	80
Direct materials	\$ 940
Direct labor cost	\$ 2,240

The amount of overhead applied to Job X455 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$176
- B) \$792
- C) \$968
- D) \$616

- 167) Cull Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$462,000, variable manufacturing overhead of \$2.20 per machine-hour, and 60,000 machine-hours. The company has provided the following data concerning Job X455 which was recently completed:

Number of units in the job	20
Total machine-hours	80
Direct materials	\$ 940
Direct labor cost	\$ 2,240

The total job cost for Job X455 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$3,972
- B) \$1,732
- C) \$3,180
- D) \$3,032

Managerial Accounting Edition 18 by Garrison

- 168) Cull Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$462,000, variable manufacturing overhead of \$2.20 per machine-hour, and 60,000 machine-hours. The company has provided the following data concerning Job X455 which was recently completed:

Number of units in the job	20
Total machine-hours	80
Direct materials	\$ 940
Direct labor cost	\$ 2,240

The unit product cost for Job X455 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$86.60
- B) \$159.00
- C) \$198.60
- D) \$49.65

- 169) Cull Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$308,000, variable manufacturing overhead of \$2.60 per machine-hour, and 44,000 machine-hours. The company has provided the following data concerning Job X455 which was recently completed:

Number of units in the job	20
Total machine-hours	80
Direct materials	\$ 970
Direct labor cost	\$ 1,940

If the company marks up its unit product costs by 20% then the selling price for a unit in Job X455 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$240.68
- B) \$183.90
- C) \$36.78
- D) \$220.68

Managerial Accounting Edition 18 by Garrison

- 170) Cull Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$462,000, variable manufacturing overhead of \$2.20 per machine-hour, and 60,000 machine-hours. The company has provided the following data concerning Job X455 which was recently completed:

Number of units in the job	20
Total machine-hours	80
Direct materials	\$ 940
Direct labor cost	\$ 2,240

If the company marks up its unit product costs by 20% then the selling price for a unit in Job X455 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$258.32
- B) \$190.80
- C) \$39.72
- D) \$238.32

- 171) Kostelnik Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$237,000, variable manufacturing overhead of \$3.90 per machine-hour, and 30,000 machine-hours. The company has provided the following data concerning Job A496 which was recently completed:

Number of units in the job	20
Total machine-hours	80
Direct materials	\$ 500
Direct labor cost	\$ 2,160

The amount of overhead applied to Job A496 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$1,256
- B) \$632
- C) \$944
- D) \$312

Managerial Accounting Edition 18 by Garrison

- 172) Kostelnik Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$237,000, variable manufacturing overhead of \$3.90 per machine-hour, and 30,000 machine-hours. The company has provided the following data concerning Job A496 which was recently completed:

Number of units in the job	20
Total machine-hours	80
Direct materials	\$ 500
Direct labor cost	\$ 2,160

The total job cost for Job A496 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$2,660
- B) \$3,104
- C) \$3,604
- D) \$1,444

- 173) Kostelnik Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$288,600, variable manufacturing overhead of \$2.60 per machine-hour, and 39,000 machine-hours. The company has provided the following data concerning Job A496 which was recently completed:

Number of units in the job	20
Total machine-hours	80
Direct materials	\$ 830
Direct labor cost	\$ 1,660

The unit product cost for Job A496 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$124.50
- B) \$31.12
- C) \$41.12
- D) \$164.50

Managerial Accounting Edition 18 by Garrison

- 174) Kostelnik Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$237,000, variable manufacturing overhead of \$3.90 per machine-hour, and 30,000 machine-hours. The company has provided the following data concerning Job A496 which was recently completed:

Number of units in the job	20
Total machine-hours	80
Direct materials	\$ 500
Direct labor cost	\$ 2,160

The unit product cost for Job A496 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$133.00
- B) \$72.20
- C) \$45.05
- D) \$180.20

- 175) Kostelnik Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$237,000, variable manufacturing overhead of \$3.90 per machine-hour, and 30,000 machine-hours. The company has provided the following data concerning Job A496 which was recently completed:

Number of units in the job	20
Total machine-hours	80
Direct materials	\$ 500
Direct labor cost	\$ 2,160

If the company marks up its unit product costs by 40% then the selling price for a unit in Job A496 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$186.20
- B) \$272.28
- C) \$72.08
- D) \$252.28

Managerial Accounting Edition 18 by Garrison

- 176) Halbur Corporation has two manufacturing departments--Machining and Customizing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Machining	Customizing	Total
Estimated total machine-hours (MHs)	6,000	4,000	10,000
Estimated total fixed manufacturing overhead cost	\$ 33,600	\$ 10,000	\$ 43,600
Estimated variable manufacturing overhead cost per MH	\$ 1.80	\$ 2.80	

During the most recent month, the company started and completed two jobs--Job C and Job J. There were no beginning inventories. Data concerning those two jobs follow:

	Job C	Job J
Direct materials	\$ 11,300	\$ 8,100
Direct labor cost	\$ 18,500	\$ 6,300
Machining machine-hours	4,100	1,900
Customizing machine-hours	1,600	2,400

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. The amount of manufacturing overhead applied to Job J is closest to:

TBEXAM.COM

Note: Round your intermediate calculations to 2 decimal places.

- A) \$28,208
- B) \$18,748
- C) \$12,464
- D) \$15,744

Managerial Accounting Edition 18 by Garrison

- 177) Halbur Corporation has two manufacturing departments--Machining and Customizing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Machining	Customizing	Total
Estimated total machine-hours (MHs)	6,000	4,000	10,000
Estimated total fixed manufacturing overhead cost	\$ 33,600	\$ 10,000	\$ 43,600
Estimated variable manufacturing overhead cost per MH	\$ 1.80	\$ 2.80	

During the most recent month, the company started and completed two jobs--Job C and Job J. There were no beginning inventories. Data concerning those two jobs follow:

	Job C	Job J
Direct materials	\$ 11,300	\$ 8,100
Direct labor cost	\$ 18,500	\$ 6,300
Machining machine-hours	4,100	1,900
Customizing machine-hours	1,600	2,400

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. The total manufacturing cost assigned to Job C is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$18,500
- B) \$67,192
- C) \$11,300
- D) \$37,392

Managerial Accounting Edition 18 by Garrison

- 178) Prather Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on the following data:

Total direct labor-hours	50,000
Total fixed manufacturing overhead cost	\$ 285,000
Variable manufacturing overhead per direct labor-hour	\$ 3.80

Recently, Job P513 was completed with the following characteristics:

Number of units in the job	10
Total direct labor-hours	20
Direct materials	\$ 710
Direct labor cost	\$ 500

The estimated total manufacturing overhead is closest to:

- A) \$475,000
- B) \$285,000
- C) \$190,000
- D) \$285,004

- 179) Prather Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on the following data:

Total direct labor-hours	TBEXAM.COM	50,000
Total fixed manufacturing overhead cost		\$ 285,000
Variable manufacturing overhead per direct labor-hour		\$ 3.80

Recently, Job P513 was completed with the following characteristics:

Number of units in the job	10
Total direct labor-hours	20
Direct materials	\$ 710
Direct labor cost	\$ 500

The predetermined overhead rate is closest to:

- A) \$13.30 per direct labor-hour
- B) \$3.80 per direct labor-hour
- C) \$9.50 per direct labor-hour
- D) \$5.70 per direct labor-hour

Managerial Accounting Edition 18 by Garrison

- 180) Prather Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on the following data:

Total direct labor-hours	50,000
Total fixed manufacturing overhead cost	\$ 285,000
Variable manufacturing overhead per direct labor-hour	\$ 3.80

Recently, Job P513 was completed with the following characteristics:

Number of units in the job	10
Total direct labor-hours	20
Direct materials	\$ 710
Direct labor cost	\$ 500

The amount of overhead applied to Job P513 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$76
- B) \$190
- C) \$266
- D) \$114

- 181) Prather Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on the following data:

Total direct labor-hours	50,000
Total fixed manufacturing overhead cost	\$ 285,000
Variable manufacturing overhead per direct labor-hour	\$ 3.80

Recently, Job P513 was completed with the following characteristics:

Number of units in the job	10
Total direct labor-hours	20
Direct materials	\$ 710
Direct labor cost	\$ 500

The total job cost for Job P513 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$690
- B) \$900
- C) \$1,400
- D) \$1,210

Managerial Accounting Edition 18 by Garrison

- 182) Kubes Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$90,000, variable manufacturing overhead of \$3.50 per direct labor-hour, and 30,000 direct labor-hours. The company has provided the following data concerning Job A477 which was recently completed:

Total direct labor-hours	100
Direct materials	\$ 520
Direct labor cost	\$ 2,800

The amount of overhead applied to Job A477 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$300
- B) \$350
- C) \$650
- D) \$1,000

- 183) Kubes Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on total fixed manufacturing overhead cost of \$90,000, variable manufacturing overhead of \$3.50 per direct labor-hour, and 30,000 direct labor-hours. The company has provided the following data concerning Job A477 which was recently completed:

Total direct labor-hours	100
Direct materials	\$ 520
Direct labor cost	\$ 2,800

The total job cost for Job A477 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$3,450
- B) \$1,170
- C) \$3,970
- D) \$3,320

Managerial Accounting Edition 18 by Garrison

- 184) Deloria Corporation has two production departments, Forming and Assembly. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Assembly Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Assembly
Machine-hours	19,000	15,000
Direct labor-hours	4,000	8,000
Total fixed manufacturing overhead cost	\$ 129,200	\$ 77,600
Variable manufacturing overhead per machine-hour	\$ 1.60	
Variable manufacturing overhead per direct labor-hour		\$ 3.00

During the current month the company started and finished Job T288. The following data were recorded for this job:

Job T288:	Forming	Assembly
Machine-hours	80	10
Direct labor-hours	30	40
Direct materials	\$ 730	\$ 380
Direct labor cost	\$ 900	\$ 1,200

The estimated total manufacturing overhead for the Assembly Department is closest to:

- A) \$77,600
- B) \$101,600
- C) \$56,674
- D) \$24,000

Managerial Accounting Edition 18 by Garrison

- 185) Deloria Corporation has two production departments, Forming and Assembly. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Assembly Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Assembly
Machine-hours	19,000	15,000
Direct labor-hours	4,000	8,000
Total fixed manufacturing overhead cost	\$ 129,200	\$ 77,600
Variable manufacturing overhead per machine-hour	\$ 1.60	
Variable manufacturing overhead per direct labor-hour		\$ 3.00

During the current month the company started and finished Job T288. The following data were recorded for this job:

Job T288:	Forming	Assembly
Machine-hours	80	10
Direct labor-hours	30	40
Direct materials	\$ 730	\$ 380
Direct labor cost	\$ 900	\$ 1,200

The predetermined overhead rate for the Assembly Department is closest to:

- A) \$3.00 per direct labor-hour
- B) \$12.70 per direct labor-hour
- C) \$9.70 per direct labor-hour
- D) \$5.35 per direct labor-hour

Managerial Accounting Edition 18 by Garrison

- 186) Deloria Corporation has two production departments, Forming and Assembly. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Assembly Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Assembly
Machine-hours	19,000	15,000
Direct labor-hours	4,000	8,000
Total fixed manufacturing overhead cost	\$ 129,200	\$ 77,600
Variable manufacturing overhead per machine-hour	\$ 1.60	
Variable manufacturing overhead per direct labor-hour		\$ 3.00

During the current month the company started and finished Job T288. The following data were recorded for this job:

Job T288:	Forming	Assembly
Machine-hours	80	10
Direct labor-hours	30	40
Direct materials	\$ 730	\$ 380
Direct labor cost	\$ 900	\$ 1,200

The amount of overhead applied in the Assembly Department to Job T288 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$508.00
- B) \$101,600.00
- C) \$388.00
- D) \$120.00

Managerial Accounting Edition 18 by Garrison

- 187) Deloria Corporation has two production departments, Forming and Assembly. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Assembly Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Assembly
Machine-hours	19,000	15,000
Direct labor-hours	4,000	8,000
Total fixed manufacturing overhead cost	\$ 129,200	\$ 77,600
Variable manufacturing overhead per machine-hour	\$ 1.60	
Variable manufacturing overhead per direct labor-hour		\$ 3.00

During the current month the company started and finished Job T288. The following data were recorded for this job:

Job T288:	Forming	Assembly
Machine-hours	80	10
Direct labor-hours	30	40
Direct materials	\$ 730	\$ 380
Direct labor cost	\$ 900	\$ 1,200

The total amount of overhead applied in both departments to Job T288 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$508
- B) \$672
- C) \$1,688
- D) \$1,180

Managerial Accounting Edition 18 by Garrison

- 188) Deloria Corporation has two production departments, Forming and Assembly. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Assembly Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Assembly
Machine-hours	19,000	15,000
Direct labor-hours	4,000	8,000
Total fixed manufacturing overhead cost	\$ 129,200	\$ 77,600
Variable manufacturing overhead per machine-hour	\$ 1.60	
Variable manufacturing overhead per direct labor-hour		\$ 3.00

During the current month the company started and finished Job T288. The following data were recorded for this job:

Job T288:	Forming	Assembly
Machine-hours	80	10
Direct labor-hours	30	40
Direct materials	\$ 730	\$ 380
Direct labor cost	\$ 900	\$ 1,200

The total job cost for Job T288 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$672
- B) \$2,088
- C) \$2,302
- D) \$4,390

Managerial Accounting Edition 18 by Garrison

- 189) Deloria Corporation has two production departments, Forming and Assembly. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Assembly Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Assembly
Machine-hours	19,000	15,000
Direct labor-hours	4,000	8,000
Total fixed manufacturing overhead cost	\$ 129,200	\$ 77,600
Variable manufacturing overhead per machine-hour	\$ 1.60	
Variable manufacturing overhead per direct labor-hour		\$ 3.00

During the current month the company started and finished Job T288. The following data were recorded for this job:

Job T288:	Forming	Assembly
Machine-hours	80	10
Direct labor-hours	30	40
Direct materials	\$ 730	\$ 380
Direct labor cost	\$ 900	\$ 1,200

If the company marks up its manufacturing costs by 20% then the selling price for Job T288 would be closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$4,390.00
- B) \$878.00
- C) \$5,268.00
- D) \$5,795.00

Managerial Accounting Edition 18 by Garrison

- 190) Macnamara Corporation has two manufacturing departments--Casting and Finishing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Casting	Finishing	Total
Estimated total machine-hours (MHs)	1,000	4,000	5,000
Estimated total fixed manufacturing overhead cost	\$ 4,800	\$ 8,800	\$ 13,600
Estimated variable manufacturing overhead cost per MH	\$ 1.80	\$ 2.90	

During the most recent month, the company started and completed two jobs--Job F and Job M. There were no beginning inventories. Data concerning those two jobs follow:

	Job F	Job M
Direct materials	\$ 11,500	\$ 9,000
Direct labor cost	\$ 18,400	\$ 7,400
Casting machine-hours	700	300
Finishing machine-hours	1,600	2,400

Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. The manufacturing overhead applied to Job F is closest to: TBEXAM.COM

Note: Round your intermediate calculations to 2 decimal places.

- A) \$4,620
- B) \$12,780
- C) \$12,420
- D) \$8,160

Managerial Accounting Edition 18 by Garrison

- 191) Macnamara Corporation has two manufacturing departments--Casting and Finishing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Casting	Finishing	Total
Estimated total machine-hours (MHs)	1,000	4,000	5,000
Estimated total fixed manufacturing overhead cost	\$ 4,800	\$ 8,800	\$ 13,600
Estimated variable manufacturing overhead cost per MH	\$ 1.80	\$ 2.90	

During the most recent month, the company started and completed two jobs--Job F and Job M. There were no beginning inventories. Data concerning those two jobs follow:

	Job F	Job M
Direct materials	\$ 11,500	\$ 9,000
Direct labor cost	\$ 18,400	\$ 7,400
Casting machine-hours	700	300
Finishing machine-hours	1,600	2,400

Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. Further assume that the company uses a markup of 50% on manufacturing cost to establish selling prices. The calculated selling price for Job M is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$15,310
- B) \$47,767
- C) \$30,620
- D) \$45,930

Managerial Accounting Edition 18 by Garrison

- 192) Hickingbottom Corporation has two production departments, Forming and Finishing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Finishing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Finishing
Machine-hours	17,000	15,000
Direct labor-hours	1,000	7,000
Total fixed manufacturing overhead cost	\$ 96,900	\$ 65,800
Variable manufacturing overhead per machine-hour	\$ 2.00	
Variable manufacturing overhead per direct labor-hour		\$ 3.60

During the current month the company started and finished Job M381. The following data were recorded for this job:

Job M381:	Forming	Finishing
Machine-hours	80	30
Direct labor-hours	30	40
Direct materials	\$ 840	\$ 350
Direct labor cost	\$ 750	\$ 1,000

The predetermined overhead rate for the Forming Department is closest to:

- A) \$5.70 per machine-hour
- B) \$7.70 per machine-hour
- C) \$2.00 per machine-hour
- D) \$18.70 per machine-hour

Managerial Accounting Edition 18 by Garrison

- 193) Hickingbottom Corporation has two production departments, Forming and Finishing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Finishing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Finishing
Machine-hours	17,000	15,000
Direct labor-hours	1,000	7,000
Total fixed manufacturing overhead cost	\$ 96,900	\$ 65,800
Variable manufacturing overhead per machine-hour	\$ 2.00	
Variable manufacturing overhead per direct labor-hour		\$ 3.60

During the current month the company started and finished Job M381. The following data were recorded for this job:

Job M381:	Forming	Finishing
Machine-hours	80	30
Direct labor-hours	30	40
Direct materials	\$ 840	\$ 350
Direct labor cost	\$ 750	\$ 1,000

The predetermined overhead rate for the Finishing Department is closest to:

- A) \$9.40 per direct labor-hour
- B) \$13.00 per direct labor-hour
- C) \$3.60 per direct labor-hour
- D) \$5.35 per direct labor-hour

Managerial Accounting Edition 18 by Garrison

- 194) Hickingbottom Corporation has two production departments, Forming and Finishing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Finishing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Finishing
Machine-hours	17,000	15,000
Direct labor-hours	1,000	7,000
Total fixed manufacturing overhead cost	\$ 96,900	\$ 65,800
Variable manufacturing overhead per machine-hour	\$ 2.00	
Variable manufacturing overhead per direct labor-hour		\$ 3.60

During the current month the company started and finished Job M381. The following data were recorded for this job:

Job M381:	Forming	Finishing
Machine-hours	80	30
Direct labor-hours	30	40
Direct materials	\$ 840	\$ 350
Direct labor cost	\$ 750	\$ 1,000

The total job cost for Job M381 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$2,206
- B) \$616
- C) \$4,076
- D) \$1,870

Managerial Accounting Edition 18 by Garrison

- 195) Kalp Corporation has two production departments, Machining and Finishing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Finishing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Finishing
Machine-hours	19,000	12,000
Direct labor-hours	2,000	8,000
Total fixed manufacturing overhead cost	\$ 136,800	\$ 69,600
Variable manufacturing overhead per machine-hour	\$ 1.80	
Variable manufacturing overhead per direct labor-hour		\$ 3.20

During the current month the company started and finished Job K928. The following data were recorded for this job:

Job K928:	Machining	Finishing
Machine-hours	90	10
Direct labor-hours	30	50
Direct materials	\$ 775	\$ 415
Direct labor cost	\$ 630	\$ 1,050

The estimated total manufacturing overhead for the Machining Department is closest to:

- A) \$136,800
- B) \$34,200
- C) \$171,000
- D) \$359,100

Managerial Accounting Edition 18 by Garrison

- 196) Kalp Corporation has two production departments, Machining and Finishing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Finishing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Finishing
Machine-hours	19,000	12,000
Direct labor-hours	2,000	8,000
Total fixed manufacturing overhead cost	\$ 136,800	\$ 69,600
Variable manufacturing overhead per machine-hour	\$ 1.80	
Variable manufacturing overhead per direct labor-hour		\$ 3.20

During the current month the company started and finished Job K928. The following data were recorded for this job:

Job K928:	Machining	Finishing
Machine-hours	90	10
Direct labor-hours	30	50
Direct materials	\$ 775	\$ 415
Direct labor cost	\$ 630	\$ 1,050

The predetermined overhead rate for the Machining Department is closest to:

- A) \$7.20 per machine-hour
- B) \$9.00 per machine-hour
- C) \$21.38 per machine-hour
- D) \$1.80 per machine-hour

Managerial Accounting Edition 18 by Garrison

- 197) Kalp Corporation has two production departments, Machining and Finishing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Finishing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Finishing
Machine-hours	19,000	12,000
Direct labor-hours	2,000	8,000
Total fixed manufacturing overhead cost	\$ 136,800	\$ 69,600
Variable manufacturing overhead per machine-hour	\$ 1.80	
Variable manufacturing overhead per direct labor-hour		\$ 3.20

During the current month the company started and finished Job K928. The following data were recorded for this job:

Job K928:	Machining	Finishing
Machine-hours	90	10
Direct labor-hours	30	50
Direct materials	\$ 775	\$ 415
Direct labor cost	\$ 630	\$ 1,050

The amount of overhead applied in the Machining Department to Job K928 is closest to:

- A) \$783.00
- B) \$810.00
- C) \$162.00
- D) \$171,000.00

Managerial Accounting Edition 18 by Garrison

- 198) Kalp Corporation has two production departments, Machining and Finishing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Finishing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Finishing
Machine-hours	19,000	12,000
Direct labor-hours	2,000	8,000
Total fixed manufacturing overhead cost	\$ 136,800	\$ 69,600
Variable manufacturing overhead per machine-hour	\$ 1.80	
Variable manufacturing overhead per direct labor-hour		\$ 3.20

During the current month the company started and finished Job K928. The following data were recorded for this job:

Job K928:	Machining	Finishing
Machine-hours	90	10
Direct labor-hours	30	50
Direct materials	\$ 775	\$ 415
Direct labor cost	\$ 630	\$ 1,050

The total amount of overhead applied in both departments to Job K928 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$1,405
- B) \$2,000
- C) \$810
- D) \$595

Managerial Accounting Edition 18 by Garrison

- 199) Kalp Corporation has two production departments, Machining and Finishing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Finishing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Finishing
Machine-hours	19,000	12,000
Direct labor-hours	2,000	8,000
Total fixed manufacturing overhead cost	\$ 136,800	\$ 69,600
Variable manufacturing overhead per machine-hour	\$ 1.80	
Variable manufacturing overhead per direct labor-hour		\$ 3.20

During the current month the company started and finished Job K928. The following data were recorded for this job:

Job K928:	Machining	Finishing
Machine-hours	90	10
Direct labor-hours	30	50
Direct materials	\$ 775	\$ 415
Direct labor cost	\$ 630	\$ 1,050

The total job cost for Job K928 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$810
- B) \$4,275
- C) \$2,060
- D) \$2,215

Managerial Accounting Edition 18 by Garrison

- 200) Kalp Corporation has two production departments, Machining and Finishing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Finishing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Finishing
Machine-hours	19,000	12,000
Direct labor-hours	2,000	8,000
Total fixed manufacturing overhead cost	\$ 136,800	\$ 69,600
Variable manufacturing overhead per machine-hour	\$ 1.80	
Variable manufacturing overhead per direct labor-hour		\$ 3.20

During the current month the company started and finished Job K928. The following data were recorded for this job:

Job K928:	Machining	Finishing
Machine-hours	90	10
Direct labor-hours	30	50
Direct materials	\$ 775	\$ 415
Direct labor cost	\$ 630	\$ 1,050

If the company marks up its manufacturing costs by 20% then the selling price for Job K928 would be closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$4,275.00
- B) \$5,643.00
- C) \$5,130.00
- D) \$855.00

Managerial Accounting Edition 18 by Garrison

201) Janicki Corporation has two manufacturing departments--Machining and Customizing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Machining	Customizing	Total
Estimated total machine-hours (MHs)	1,000	9,000	10,000
Estimated total fixed manufacturing overhead cost	\$ 4,800	\$ 23,400	\$ 28,200
Estimated variable manufacturing overhead cost per MH	\$ 1.10	\$ 2.50	

During the most recent month, the company started and completed two jobs--Job A and Job J. There were no beginning inventories. Data concerning those two jobs follow:

	Job A	Job J
Direct materials	\$ 12,000	\$ 7,700
Direct labor cost	\$ 20,700	\$ 6,400
Machining machine-hours	700	300
Customizing machine-hours	3,600	5,400

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours and uses a markup of 50% on manufacturing cost to establish selling prices. The calculated selling price for Job A is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$90,707
- B) \$27,487
- C) \$82,461
- D) \$54,974

Managerial Accounting Edition 18 by Garrison

202) Janicki Corporation has two manufacturing departments--Machining and Customizing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Machining	Customizing	Total
Estimated total machine-hours (MHs)	1,000	9,000	10,000
Estimated total fixed manufacturing overhead cost	\$ 4,800	\$ 23,400	\$ 28,200
Estimated variable manufacturing overhead cost per MH	\$ 1.10	\$ 2.50	

During the most recent month, the company started and completed two jobs--Job A and Job J. There were no beginning inventories. Data concerning those two jobs follow:

	Job A	Job J
Direct materials	\$ 12,000	\$ 7,700
Direct labor cost	\$ 20,700	\$ 6,400
Machining machine-hours	700	300
Customizing machine-hours	3,600	5,400

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours and uses a markup of 50% on manufacturing cost to establish selling prices. The calculated selling price for Job J is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$71,983
- B) \$65,439
- C) \$43,626
- D) \$21,813

Managerial Accounting Edition 18 by Garrison

203) Janicki Corporation has two manufacturing departments--Machining and Customizing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Machining	Customizing	Total
Estimated total machine-hours (MHs)	1,000	9,000	10,000
Estimated total fixed manufacturing overhead cost	\$ 4,800	\$ 23,400	\$ 28,200
Estimated variable manufacturing overhead cost per MH	\$ 1.10	\$ 2.50	

During the most recent month, the company started and completed two jobs--Job A and Job J. There were no beginning inventories. Data concerning those two jobs follow:

	Job A	Job J
Direct materials	\$ 12,000	\$ 7,700
Direct labor cost	\$ 20,700	\$ 6,400
Machining machine-hours	700	300
Customizing machine-hours	3,600	5,400

Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. Further assume that the company uses a markup of 50% on manufacturing cost to establish selling prices. The calculated selling price for Job A is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$27,595
- B) \$87,752
- C) \$82,785
- D) \$55,190

Managerial Accounting Edition 18 by Garrison

- 204) Janicki Corporation has two manufacturing departments--Machining and Customizing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Machining	Customizing	Total
Estimated total machine-hours (MHs)	1,000	9,000	10,000
Estimated total fixed manufacturing overhead cost	\$ 4,800	\$ 23,400	\$ 28,200
Estimated variable manufacturing overhead cost per MH	\$ 1.10	\$ 2.50	

During the most recent month, the company started and completed two jobs--Job A and Job J. There were no beginning inventories. Data concerning those two jobs follow:

	Job A	Job J
Direct materials	\$ 12,000	\$ 7,700
Direct labor cost	\$ 20,700	\$ 6,400
Machining machine-hours	700	300
Customizing machine-hours	3,600	5,400

Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. Further assume that the company uses a markup of 50% on manufacturing cost to establish selling prices. The calculated selling price for Job J is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$65,115
- B) \$67,720
- C) \$21,705
- D) \$43,410

Managerial Accounting Edition 18 by Garrison

- 205) Comans Corporation has two production departments, Milling and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Milling Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Milling	Customizing
Machine-hours	18,000	13,000
Direct labor-hours	4,000	7,000
Total fixed manufacturing overhead cost	\$ 113,400	\$ 64,400
Variable manufacturing overhead per machine-hour	\$ 1.60	
Variable manufacturing overhead per direct labor-hour		\$ 3.90

During the current month the company started and finished Job A319. The following data were recorded for this job:

Job A319:	Milling	Customizing
Machine-hours	60	10
Direct labor-hours	20	60
Direct materials	\$ 655	\$ 305
Direct labor cost	\$ 400	\$ 1,200

The amount of overhead applied in the Milling Department to Job A319 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$142,200.00
- B) \$552.00
- C) \$96.00
- D) \$474.00

Managerial Accounting Edition 18 by Garrison

- 206) Comans Corporation has two production departments, Milling and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Milling Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Milling	Customizing
Machine-hours	18,000	13,000
Direct labor-hours	4,000	7,000
Total fixed manufacturing overhead cost	\$ 113,400	\$ 64,400
Variable manufacturing overhead per machine-hour	\$ 1.60	
Variable manufacturing overhead per direct labor-hour		\$ 3.90

During the current month the company started and finished Job A319. The following data were recorded for this job:

Job A319:	Milling	Customizing
Machine-hours	60	10
Direct labor-hours	20	60
Direct materials	\$ 655	\$ 305
Direct labor cost	\$ 400	\$ 1,200

The amount of overhead applied in the Customizing Department to Job A319 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$234.00
- B) \$786.00
- C) \$552.00
- D) \$91,700.00

Managerial Accounting Edition 18 by Garrison

- 207) Comans Corporation has two production departments, Milling and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Milling Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Milling	Customizing
Machine-hours	16,000	11,000
Direct labor-hours	18,000	6,000
Total fixed manufacturing overhead cost	\$ 92,800	\$ 28,800
Variable manufacturing overhead per machine-hour	\$ 1.20	
Variable manufacturing overhead per direct labor-hour		\$ 5.00

During the current month the company started and finished Job A319. The following data were recorded for this job:

Job A319:	Milling	Customizing
Machine-hours	50	40
Direct labor-hours	60	30
Direct materials	\$ 430	\$ 180
Direct labor cost	\$ 800	\$ 540

If the company marks up its manufacturing costs by 10% then the selling price for Job A319 would be closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$3,139
- B) \$2,853
- C) \$2,594
- D) \$259

Managerial Accounting Edition 18 by Garrison

208) Comans Corporation has two production departments, Milling and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Milling Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Milling	Customizing
Machine-hours	18,000	13,000
Direct labor-hours	4,000	7,000
Total fixed manufacturing overhead cost	\$ 113,400	\$ 64,400
Variable manufacturing overhead per machine-hour	\$ 1.60	
Variable manufacturing overhead per direct labor-hour		\$ 3.90

During the current month the company started and finished Job A319. The following data were recorded for this job:

Job A319:	Milling	Customizing
Machine-hours	60	10
Direct labor-hours	20	60
Direct materials	\$ 655	\$ 305
Direct labor cost	\$ 400	\$ 1,200

If the company marks up its manufacturing costs by 20% then the selling price for Job A319 would be closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$5,042.00
- B) \$4,584.00
- C) \$3,820.00
- D) \$764.00

Managerial Accounting Edition 18 by Garrison

209) Sanderlin Corporation has two manufacturing departments--Machining and Finishing.

The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Machining	Finishing	Total
Estimated total machine-hours (MHs)	5,000	5,000	10,000
Estimated total fixed manufacturing overhead cost	\$ 26,500	\$ 13,500	\$ 40,000
Estimated variable manufacturing overhead cost per MH	\$ 2.00	\$ 3.00	

During the most recent month, the company started and completed two jobs--Job C and Job L. There were no beginning inventories. Data concerning those two jobs follow:

	Job C	Job L
Direct materials	\$ 12,500	\$ 8,200
Direct labor cost	\$ 20,200	\$ 6,400
Machining machine-hours	3,400	1,600
Finishing machine-hours	2,000	3,000

Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. The manufacturing overhead applied to Job L is closest to: TBEXAM.COM

Note: Round your intermediate calculations to 2 decimal places.

- A) \$29,900
- B) \$11,680
- C) \$28,780
- D) \$17,100

Managerial Accounting Edition 18 by Garrison

210) Sanderlin Corporation has two manufacturing departments--Machining and Finishing.

The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Machining	Finishing	Total
Estimated total machine-hours (MHs)	5,000	5,000	10,000
Estimated total fixed manufacturing overhead cost	\$ 26,500	\$ 13,500	\$ 40,000
Estimated variable manufacturing overhead cost per MH	\$ 2.00	\$ 3.00	

During the most recent month, the company started and completed two jobs--Job C and Job L. There were no beginning inventories. Data concerning those two jobs follow:

	Job C	Job L
Direct materials	\$ 12,500	\$ 8,200
Direct labor cost	\$ 20,200	\$ 6,400
Machining machine-hours	3,400	1,600
Finishing machine-hours	2,000	3,000

Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. Further assume that the company uses a markup of 20% on manufacturing cost to establish selling prices. The calculated selling price for Job C is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$87,666
- B) \$68,920
- C) \$13,784
- D) \$82,704

Managerial Accounting Edition 18 by Garrison

211) Collini Corporation has two production departments, Machining and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Customizing
Machine-hours	17,000	15,000
Direct labor-hours	3,000	6,000
Total fixed manufacturing overhead cost	\$ 102,000	\$ 61,200
Variable manufacturing overhead per machine-hour	\$ 1.70	
Variable manufacturing overhead per direct labor-hour		\$ 4.10

During the current month the company started and finished Job T268. The following data were recorded for this job:

Job T268:	Machining	Customizing
Machine-hours	80	30
Direct labor-hours	30	50
Direct materials	\$ 720	\$ 380
Direct labor cost	\$ 900	\$ 1,500

The total amount of overhead applied in both departments to Job T268 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$616
- B) \$715
- C) \$2,046
- D) \$1,331

Managerial Accounting Edition 18 by Garrison

- 212) Collini Corporation has two production departments, Machining and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Customizing
Machine-hours	17,000	15,000
Direct labor-hours	3,000	6,000
Total fixed manufacturing overhead cost	\$ 102,000	\$ 61,200
Variable manufacturing overhead per machine-hour	\$ 1.70	
Variable manufacturing overhead per direct labor-hour		\$ 4.10

During the current month the company started and finished Job T268. The following data were recorded for this job:

Job T268:	Machining	Customizing
Machine-hours	80	30
Direct labor-hours	30	50
Direct materials	\$ 720	\$ 380
Direct labor cost	\$ 900	\$ 1,500

The total job cost for Job T268 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$2,595
- B) \$616
- C) \$4,831
- D) \$2,236

Managerial Accounting Edition 18 by Garrison

- 213) Collini Corporation has two production departments, Machining and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Customizing
Machine-hours	17,000	15,000
Direct labor-hours	3,000	6,000
Total fixed manufacturing overhead cost	\$ 102,000	\$ 61,200
Variable manufacturing overhead per machine-hour	\$ 1.70	
Variable manufacturing overhead per direct labor-hour		\$ 4.10

During the current month the company started and finished Job T268. The following data were recorded for this job:

Job T268:	Machining	Customizing
Machine-hours	80	30
Direct labor-hours	30	50
Direct materials	\$ 720	\$ 380
Direct labor cost	\$ 900	\$ 1,500

If the company marks up its manufacturing costs by 40% then the selling price for Job T268 would be closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$1,932.40
- B) \$6,763.40
- C) \$4,831.00
- D) \$7,440.00

Managerial Accounting Edition 18 by Garrison

- 214) Heroux Corporation has two manufacturing departments--Forming and Customizing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Forming	Customizing	Total
Estimated total machine-hours (MHs)	3,000	7,000	10,000
Estimated total fixed manufacturing overhead cost	\$ 16,500	\$ 20,300	\$ 36,800
Estimated variable manufacturing overhead cost per MH	\$ 1.70	\$ 2.50	

During the most recent month, the company started and completed two jobs--Job A and Job H. There were no beginning inventories. Data concerning those two jobs follow:

	Job A	Job H
Direct materials	\$ 12,800	\$ 6,700
Direct labor cost	\$ 24,300	\$ 7,800
Forming machine-hours	2,000	1,000
Customizing machine-hours	2,800	4,200

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. The amount of manufacturing overhead applied to Job A is closest to:

TBEXAM.COM

Note: Round your intermediate calculations to 2 decimal places.

- A) \$28,512
- B) \$16,632
- C) \$11,880
- D) \$17,664

Managerial Accounting Edition 18 by Garrison

- 215) Heroux Corporation has two manufacturing departments--Forming and Customizing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Forming	Customizing	Total
Estimated total machine-hours (MHs)	3,000	7,000	10,000
Estimated total fixed manufacturing overhead cost	\$ 16,500	\$ 20,300	\$ 36,800
Estimated variable manufacturing overhead cost per MH	\$ 1.70	\$ 2.50	

During the most recent month, the company started and completed two jobs--Job A and Job H. There were no beginning inventories. Data concerning those two jobs follow:

	Job A	Job H
Direct materials	\$ 12,800	\$ 6,700
Direct labor cost	\$ 24,300	\$ 7,800
Forming machine-hours	2,000	1,000
Customizing machine-hours	2,800	4,200

Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. The amount of manufacturing overhead applied to Job H is closest to:

TBEXAM.COM

Note: Round your intermediate calculations to 2 decimal places.

- A) \$19,136
- B) \$5,940
- C) \$30,888
- D) \$24,948

Managerial Accounting Edition 18 by Garrison

- 216) Heroux Corporation has two manufacturing departments--Forming and Customizing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Forming	Customizing	Total
Estimated total machine-hours (MHs)	3,000	7,000	10,000
Estimated total fixed manufacturing overhead cost	\$ 16,500	\$ 20,300	\$ 36,800
Estimated variable manufacturing overhead cost per MH	\$ 1.70	\$ 2.50	

During the most recent month, the company started and completed two jobs--Job A and Job H. There were no beginning inventories. Data concerning those two jobs follow:

	Job A	Job H
Direct materials	\$ 12,800	\$ 6,700
Direct labor cost	\$ 24,300	\$ 7,800
Forming machine-hours	2,000	1,000
Customizing machine-hours	2,800	4,200

Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. The manufacturing overhead applied to Job A is closest to: TBEXAM.COM

Note: Round your intermediate calculations to 2 decimal places.

- A) \$14,400
- B) \$15,120
- C) \$28,512
- D) \$29,520

Managerial Accounting Edition 18 by Garrison

- 217) Heroux Corporation has two manufacturing departments--Forming and Customizing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Forming	Customizing	Total
Estimated total machine-hours (MHs)	3,000	7,000	10,000
Estimated total fixed manufacturing overhead cost	\$ 16,500	\$ 20,300	\$ 36,800
Estimated variable manufacturing overhead cost per MH	\$ 1.70	\$ 2.50	

During the most recent month, the company started and completed two jobs--Job A and Job H. There were no beginning inventories. Data concerning those two jobs follow:

	Job A	Job H
Direct materials	\$ 12,800	\$ 6,700
Direct labor cost	\$ 24,300	\$ 7,800
Forming machine-hours	2,000	1,000
Customizing machine-hours	2,800	4,200

Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. The manufacturing overhead applied to Job H is closest to: TBEXAM.COM

Note: Round your intermediate calculations to 2 decimal places.

- A) \$22,680
- B) \$30,888
- C) \$29,880
- D) \$7,200

Managerial Accounting Edition 18 by Garrison

218) Tiff Corporation has two production departments, Casting and Assembly. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Casting Department's predetermined overhead rate is based on machine-hours and the Assembly Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Casting	Assembly
Machine-hours	17,000	10,000
Direct labor-hours	1,000	5,000
Total fixed manufacturing overhead cost	\$ 129,200	\$ 46,500
Variable manufacturing overhead per machine-hour	\$ 1.80	
Variable manufacturing overhead per direct labor-hour		\$ 3.80

During the current month the company started and finished Job P131. The following data were recorded for this job:

Job P131:	Casting	Assembly
Machine-hours	90	20
Direct labor-hours	20	60

The predetermined overhead rate for the Casting Department is closest to:

- A) \$9.40 per machine-hour
- B) \$7.60 per machine-hour
- C) \$1.80 per machine-hour
- D) \$31.96 per machine-hour

Managerial Accounting Edition 18 by Garrison

- 219) Tiff Corporation has two production departments, Casting and Assembly. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Casting Department's predetermined overhead rate is based on machine-hours and the Assembly Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Casting	Assembly
Machine-hours	17,000	10,000
Direct labor-hours	1,000	5,000
Total fixed manufacturing overhead cost	\$ 129,200	\$ 46,500
Variable manufacturing overhead per machine-hour	\$ 1.80	
Variable manufacturing overhead per direct labor-hour		\$ 3.80

During the current month the company started and finished Job P131. The following data were recorded for this job:

Job P131:	Casting	Assembly
Machine-hours	90	20
Direct labor-hours	20	60

The amount of overhead applied in the Assembly Department to Job P131 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$228.00
- B) \$558.00
- C) \$65,500.00
- D) \$786.00

Managerial Accounting Edition 18 by Garrison

- 220) Eisentrout Corporation has two production departments, Machining and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Customizing
Machine-hours	24,000	25,000
Direct labor-hours	20,000	7,000
Total fixed manufacturing overhead cost	\$ 79,200	\$ 31,500
Variable manufacturing overhead per machine-hour	\$ 2.00	
Variable manufacturing overhead per direct labor-hour		\$ 3.50

During the current month the company started and finished Job T272. The following data were recorded for this job:

Job T272:	Machining	Customizing
Machine-hours	70	40
Direct labor-hours	60	20

The estimated total manufacturing overhead for the Machining Department is closest to:

- A) \$127,200
- B) \$79,200
- C) \$48,000
- D) \$129,200

Managerial Accounting Edition 18 by Garrison

- 221) Eisentrout Corporation has two production departments, Machining and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Customizing
Machine-hours	16,000	11,000
Direct labor-hours	2,000	6,000
Total fixed manufacturing overhead cost	\$ 104,000	\$ 56,400
Variable manufacturing overhead per machine-hour	\$ 2.10	
Variable manufacturing overhead per direct labor-hour		\$ 3.30

During the current month the company started and finished Job T272. The following data were recorded for this job:

Job T272:	Machining	Customizing
Machine-hours	60	30
Direct labor-hours	10	60

The estimated total manufacturing overhead for the Machining Department is closest to:

- A) \$137,600
- B) \$104,000
- C) \$33,600
- D) \$310,933

Managerial Accounting Edition 18 by Garrison

222) Eisentrout Corporation has two production departments, Machining and Customizing.

The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Customizing
Machine-hours	16,000	11,000
Direct labor-hours	2,000	6,000
Total fixed manufacturing overhead cost	\$ 104,000	\$ 56,400
Variable manufacturing overhead per machine-hour	\$ 2.10	
Variable manufacturing overhead per direct labor-hour		\$ 3.30

During the current month the company started and finished Job T272. The following data were recorded for this job:

Job T272:	Machining	Customizing
Machine-hours	60	30
Direct labor-hours	10	60

The estimated total manufacturing overhead for the Customizing Department is closest to:

- A) \$40,950
- B) \$19,800
- C) \$56,400
- D) \$76,200

Managerial Accounting Edition 18 by Garrison

- 223) Eisentrout Corporation has two production departments, Machining and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Customizing
Machine-hours	16,000	11,000
Direct labor-hours	2,000	6,000
Total fixed manufacturing overhead cost	\$ 104,000	\$ 56,400
Variable manufacturing overhead per machine-hour	\$ 2.10	
Variable manufacturing overhead per direct labor-hour		\$ 3.30

During the current month the company started and finished Job T272. The following data were recorded for this job:

Job T272:	Machining	Customizing
Machine-hours	60	30
Direct labor-hours	10	60

The predetermined overhead rate for the Machining Department is closest to:

- A) \$22.93 per machine-hour
- B) \$6.50 per machine-hour
- C) \$2.10 per machine-hour
- D) \$8.60 per machine-hour

Managerial Accounting Edition 18 by Garrison

- 224) Eisentrout Corporation has two production departments, Machining and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Customizing
Machine-hours	16,000	11,000
Direct labor-hours	2,000	6,000
Total fixed manufacturing overhead cost	\$ 104,000	\$ 56,400
Variable manufacturing overhead per machine-hour	\$ 2.10	
Variable manufacturing overhead per direct labor-hour		\$ 3.30

During the current month the company started and finished Job T272. The following data were recorded for this job:

Job T272:	Machining	Customizing
Machine-hours	60	30
Direct labor-hours	10	60

The predetermined overhead rate for the Customizing Department is closest to:

- A) \$3.30 per direct labor-hour
- B) \$12.70 per direct labor-hour
- C) \$9.40 per direct labor-hour
- D) \$4.76 per direct labor-hour

Managerial Accounting Edition 18 by Garrison

- 225) Eisentrout Corporation has two production departments, Machining and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Customizing
Machine-hours	16,000	11,000
Direct labor-hours	2,000	6,000
Total fixed manufacturing overhead cost	\$ 104,000	\$ 56,400
Variable manufacturing overhead per machine-hour	\$ 2.10	
Variable manufacturing overhead per direct labor-hour		\$ 3.30

During the current month the company started and finished Job T272. The following data were recorded for this job:

Job T272:	Machining	Customizing
Machine-hours	60	30
Direct labor-hours	10	60

The amount of overhead applied in the Machining Department to Job T272 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$137,600.00
- B) \$126.00
- C) \$516.00
- D) \$564.00

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- 226) Eisentrout Corporation has two production departments, Machining and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Customizing
Machine-hours	16,000	11,000
Direct labor-hours	2,000	6,000
Total fixed manufacturing overhead cost	\$ 104,000	\$ 56,400
Variable manufacturing overhead per machine-hour	\$ 2.10	
Variable manufacturing overhead per direct labor-hour		\$ 3.30

During the current month the company started and finished Job T272. The following data were recorded for this job:

Job T272:	Machining	Customizing
Machine-hours	60	30
Direct labor-hours	10	60

The amount of overhead applied in the Customizing Department to Job T272 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$76,200.00
- B) \$762.00
- C) \$564.00
- D) \$198.00

Managerial Accounting Edition 18 by Garrison

- 227) Stoke Corporation has two production departments, Forming and Assembly. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Assembly Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Assembly
Machine-hours	20,000	15,000
Direct labor-hours	2,000	7,000
Total fixed manufacturing overhead cost	\$ 138,000	\$ 58,100
Variable manufacturing overhead per machine-hour	\$ 2.30	
Variable manufacturing overhead per direct labor-hour		\$ 3.00

During the current month the company started and finished Job A460. The following data were recorded for this job:

Job A460:	Forming	Assembly
Machine-hours	80	10
Direct labor-hours	30	50

The amount of overhead applied in the Forming Department to Job A460 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$184,000.00
- B) \$184.00
- C) \$736.00
- D) \$664.00

Managerial Accounting Edition 18 by Garrison

- 228) Stoke Corporation has two production departments, Forming and Assembly. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Assembly Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Assembly
Machine-hours	20,000	15,000
Direct labor-hours	2,000	7,000
Total fixed manufacturing overhead cost	\$ 138,000	\$ 58,100
Variable manufacturing overhead per machine-hour	\$ 2.30	
Variable manufacturing overhead per direct labor-hour		\$ 3.00

During the current month the company started and finished Job A460. The following data were recorded for this job:

Job A460:	Forming	Assembly
Machine-hours	80	10
Direct labor-hours	30	50

The amount of overhead applied in the Assembly Department to Job A460 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$415.00
- B) \$150.00
- C) \$565.00
- D) \$79,100.00

Managerial Accounting Edition 18 by Garrison

- 229) Vanliere Corporation has two production departments, Machining and Finishing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Finishing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Finishing
Machine-hours	19,000	11,000
Direct labor-hours	3,000	6,000
Total fixed manufacturing overhead cost	\$ 138,700	\$ 52,800
Variable manufacturing overhead per machine-hour	\$ 1.90	
Variable manufacturing overhead per direct labor-hour		\$ 3.80

During the current month the company started and finished Job A803. The following data were recorded for this job:

Job A803:	Machining	Finishing
Machine-hours	90	20
Direct labor-hours	20	60

The predetermined overhead rate for the Finishing Department is closest to:

- A) \$8.80 per direct labor-hour
- B) \$3.98 per direct labor-hour
- C) \$12.60 per direct labor-hour
- D) \$3.80 per direct labor-hour

Managerial Accounting Edition 18 by Garrison

- 230) Vanliere Corporation has two production departments, Machining and Finishing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Finishing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Finishing
Machine-hours	19,000	11,000
Direct labor-hours	3,000	6,000
Total fixed manufacturing overhead cost	\$ 138,700	\$ 52,800
Variable manufacturing overhead per machine-hour	\$ 1.90	
Variable manufacturing overhead per direct labor-hour		\$ 3.80

During the current month the company started and finished Job A803. The following data were recorded for this job:

Job A803:	Machining	Finishing
Machine-hours	90	20
Direct labor-hours	20	60

The amount of overhead applied in the Machining Department to Job A803 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$828.00
- B) \$792.00
- C) \$171.00
- D) \$174,800.00

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- 231) Ahlheim Corporation has two production departments, Forming and Assembly. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Assembly Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Assembly
Machine-hours	16,000	15,000
Direct labor-hours	2,000	6,000
Total fixed manufacturing overhead cost	\$ 102,400	\$ 55,200
Variable manufacturing overhead per machine-hour	\$ 2.30	
Variable manufacturing overhead per direct labor-hour		\$ 4.50

During the current month the company started and finished Job T924. The following data were recorded for this job:

Job T924:	Forming	Assembly
Machine-hours	70	20
Direct labor-hours	30	40
Direct materials	\$870	\$385
Direct labor cost	\$630	\$840

The estimated total manufacturing overhead for the Forming Department is closest to:

- A) \$36,800
- B) \$102,400
- C) \$309,867
- D) \$139,200

Managerial Accounting Edition 18 by Garrison

232) Ahlheim Corporation has two production departments, Forming and Assembly. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Assembly Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Assembly
Machine-hours	16,000	15,000
Direct labor-hours	2,000	6,000
Total fixed manufacturing overhead cost	\$ 102,400	\$ 55,200
Variable manufacturing overhead per machine-hour	\$ 2.30	
Variable manufacturing overhead per direct labor-hour		\$ 4.50

During the current month the company started and finished Job T924. The following data were recorded for this job:

Job T924:	Forming	Assembly
Machine-hours	70	20
Direct labor-hours	30	40
Direct materials	\$870	\$385
Direct labor cost	\$630	\$840

The estimated total manufacturing overhead for the Assembly Department is closest to:

- A) \$27,000
- B) \$55,200
- C) \$82,200
- D) \$47,700

Managerial Accounting Edition 18 by Garrison

- 233) Ahlheim Corporation has two production departments, Forming and Assembly. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Assembly Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Assembly
Machine-hours	16,000	15,000
Direct labor-hours	2,000	6,000
Total fixed manufacturing overhead cost	\$ 102,400	\$ 55,200
Variable manufacturing overhead per machine-hour	\$ 2.30	
Variable manufacturing overhead per direct labor-hour		\$ 4.50

During the current month the company started and finished Job T924. The following data were recorded for this job:

Job T924:	Forming	Assembly
Machine-hours	70	20
Direct labor-hours	30	40
Direct materials	\$ 870	\$ 385
Direct labor cost	\$ 630	\$ 840

The total amount of overhead applied in both departments to Job T924 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$1,157
- B) \$548
- C) \$609
- D) \$1,705

Managerial Accounting Edition 18 by Garrison

- 234) Merati Corporation has two manufacturing departments--Forming and Assembly. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Forming	Assembly	Total
Estimated total machine-hours (MHs)	5,000	5,000	10,000
Estimated total fixed manufacturing overhead cost	\$ 28,000	\$ 10,500	\$ 38,500
Estimated variable manufacturing overhead cost per MH	\$ 1.80	\$ 2.60	

During the most recent month, the company started and completed two jobs--Job B and Job L. There were no beginning inventories. Data concerning those two jobs follow:

	Job B	Job L
Forming machine-hours	3,400	1,600
Assembly machine-hours	2,000	3,000

Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both departments. The departmental predetermined overhead rate in the Forming Department is closest to:

- A) \$5.60
- B) \$7.40
- C) \$1.80
- D) \$6.05

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235) Merati Corporation has two manufacturing departments--Forming and Assembly. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Forming	Assembly	Total
Estimated total machine-hours (MHs)	5,000	5,000	10,000
Estimated total fixed manufacturing overhead cost	\$ 28,000	\$ 10,500	\$ 38,500
Estimated variable manufacturing overhead cost per MH	\$ 1.80	\$ 2.60	

During the most recent month, the company started and completed two jobs--Job B and Job L. There were no beginning inventories. Data concerning those two jobs follow:

	Job B	Job L
Forming machine-hours	3,400	1,600
Assembly machine-hours	2,000	3,000

Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both departments. The departmental predetermined overhead rate in the Assembly Department is closest to:

- A) \$2.60
- B) \$4.70
- C) \$6.05
- D) \$2.10

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Managerial Accounting Edition 18 by Garrison

- 236) Merati Corporation has two manufacturing departments--Forming and Assembly. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Forming	Assembly	Total
Estimated total machine-hours (MHs)	5,000	5,000	10,000
Estimated total fixed manufacturing overhead cost	\$ 28,000	\$ 10,500	\$ 38,500
Estimated variable manufacturing overhead cost per MH	\$ 1.80	\$ 2.60	

During the most recent month, the company started and completed two jobs--Job B and Job L. There were no beginning inventories. Data concerning those two jobs follow:

	Job B	Job L
Forming machine-hours	3,400	1,600
Assembly machine-hours	2,000	3,000

Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. The manufacturing overhead applied to Job B is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$9,400
- B) \$25,160
- C) \$32,670
- D) \$34,560

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Managerial Accounting Edition 18 by Garrison

- 237) Merati Corporation has two manufacturing departments--Forming and Assembly. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Forming	Assembly	Total
Estimated total machine-hours (MHs)	5,000	5,000	10,000
Estimated total fixed manufacturing overhead cost	\$ 28,000	\$ 10,500	\$ 38,500
Estimated variable manufacturing overhead cost per MH	\$ 1.80	\$ 2.60	

During the most recent month, the company started and completed two jobs--Job B and Job L. There were no beginning inventories. Data concerning those two jobs follow:

	Job B	Job L
Forming machine-hours	3,400	1,600
Assembly machine-hours	2,000	3,000

Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. The manufacturing overhead applied to Job L is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$27,830
- B) \$11,840
- C) \$25,940
- D) \$14,100

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- 238) Barbeau Corporation has two production departments, Milling and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Milling Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Milling	Customizing
Machine-hours	17,000	13,000
Direct labor-hours	2,000	5,000
Total fixed manufacturing overhead cost	\$ 119,000	\$ 42,000
Variable manufacturing overhead per machine-hour	\$ 1.60	
Variable manufacturing overhead per direct labor-hour		\$ 4.30

During the current month the company started and finished Job A492. The following data were recorded for this job:

Job A492:	Milling	Customizing
Machine-hours	90	20
Direct labor-hours	20	50

The estimated total manufacturing overhead for the Customizing Department is closest to:

- A) \$63,500
- B) \$21,500
- C) \$42,000
- D) \$33,853

Managerial Accounting Edition 18 by Garrison

- 239) Barbeau Corporation has two production departments, Milling and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Milling Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Milling	Customizing
Machine-hours	17,000	13,000
Direct labor-hours	2,000	5,000
Total fixed manufacturing overhead cost	\$ 119,000	\$ 42,000
Variable manufacturing overhead per machine-hour	\$ 1.60	
Variable manufacturing overhead per direct labor-hour		\$ 4.30

During the current month the company started and finished Job A492. The following data were recorded for this job:

Job A492:	Milling	Customizing
Machine-hours	90	20
Direct labor-hours	20	50

The amount of overhead applied in the Milling Department to Job A492 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$146,200.00
- B) \$144.00
- C) \$756.00
- D) \$774.00

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240) Kroeker Corporation has two production departments, Milling and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Milling Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Milling	Customizing
Machine-hours	17,000	12,000
Direct labor-hours	1,000	9,000
Total fixed manufacturing overhead cost	\$ 112,200	\$ 81,000
Variable manufacturing overhead per machine-hour	\$ 1.70	
Variable manufacturing overhead per direct labor-hour		\$ 4.30

During the current month the company started and finished Job T898. The following data were recorded for this job:

Job T898:	Milling	Customizing
Machine-hours	80	30
Direct labor-hours	20	50

The estimated total manufacturing overhead for the Milling Department is closest to:

- A) \$240,833
- B) \$141,100
- C) \$28,900
- D) \$112,200

Managerial Accounting Edition 18 by Garrison

- 241) Kroeker Corporation has two production departments, Milling and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Milling Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Milling	Customizing
Machine-hours	17,000	12,000
Direct labor-hours	1,000	9,000
Total fixed manufacturing overhead cost	\$ 112,200	\$ 81,000
Variable manufacturing overhead per machine-hour	\$ 1.70	
Variable manufacturing overhead per direct labor-hour		\$ 4.30

During the current month the company started and finished Job T898. The following data were recorded for this job:

Job T898:	Milling	Customizing
Machine-hours	80	30
Direct labor-hours	20	50

The amount of overhead applied in the Customizing Department to Job T898 is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$450.00
- B) \$119,700.00
- C) \$665.00
- D) \$215.00

Managerial Accounting Edition 18 by Garrison

242) Petty Corporation has two production departments, Milling and Finishing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Milling Department's predetermined overhead rate is based on machine-hours and the Finishing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Milling	Finishing
Machine-hours	20,000	14,000
Direct labor-hours	2,000	8,000
Total fixed manufacturing overhead cost	\$ 148,000	\$ 88,000
Variable manufacturing overhead per machine-hour	\$ 1.90	
Variable manufacturing overhead per direct labor-hour		\$ 3.60

The estimated total manufacturing overhead for the Milling Department is closest to:

- A) \$408,000
- B) \$38,000
- C) \$148,000
- D) \$186,000

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243) Petty Corporation has two production departments, Milling and Finishing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Milling Department's predetermined overhead rate is based on machine-hours and the Finishing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Milling	Finishing
Machine-hours	20,000	14,000
Direct labor-hours	2,000	8,000
Total fixed manufacturing overhead cost	\$ 148,000	\$ 88,000
Variable manufacturing overhead per machine-hour	\$ 1.90	
Variable manufacturing overhead per direct labor-hour		\$ 3.60

The predetermined overhead rate for the Finishing Department is closest to:

- A) \$5.84 per direct labor-hour
- B) \$3.60 per direct labor-hour
- C) \$11.00 per direct labor-hour
- D) \$14.60 per direct labor-hour

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244) Garza Corporation has two production departments, Casting and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Casting Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Casting	Customizing
Machine-hours	26,000	14,000
Direct labor-hours	16,000	8,000
Total fixed manufacturing overhead cost	\$ 114,400	\$ 44,800
Variable manufacturing overhead per machine-hour	\$ 1.90	
Variable manufacturing overhead per direct labor-hour		\$ 4.30

The estimated total manufacturing overhead for the Customizing Department is closest to:

- A) \$183,200
- B) \$34,400
- C) \$79,200
- D) \$44,800

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Managerial Accounting Edition 18 by Garrison

245) Garza Corporation has two production departments, Casting and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Casting Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Casting	Customizing
Machine-hours	20,000	13,000
Direct labor-hours	1,000	7,000
Total fixed manufacturing overhead cost	\$ 152,000	\$ 68,600
Variable manufacturing overhead per machine-hour	\$ 2.10	
Variable manufacturing overhead per direct labor-hour		\$ 4.30

The estimated total manufacturing overhead for the Customizing Department is closest to:

- A) \$54,110
- B) \$30,100
- C) \$98,700
- D) \$68,600

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- 246) Garza Corporation has two production departments, Casting and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Casting Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Casting	Customizing
Machine-hours	20,000	13,000
Direct labor-hours	1,000	7,000
Total fixed manufacturing overhead cost	\$ 152,000	\$ 68,600
Variable manufacturing overhead per machine-hour	\$ 2.10	
Variable manufacturing overhead per direct labor-hour		\$ 4.30

The predetermined overhead rate for the Casting Department is closest to:

- A) \$9.70 per machine-hour
- B) \$7.60 per machine-hour
- C) \$2.10 per machine-hour
- D) \$27.71 per machine-hour

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Managerial Accounting Edition 18 by Garrison

247) Marciante Corporation has two production departments, Casting and Finishing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Casting Department's predetermined overhead rate is based on machine-hours and the Finishing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Casting	Finishing
Machine-hours	17,000	10,000
Direct labor-hours	2,000	5,000
Total fixed manufacturing overhead cost	\$ 105,400	\$ 52,000
Variable manufacturing overhead per machine-hour	\$ 1.70	
Variable manufacturing overhead per direct labor-hour		\$ 3.90

The estimated total manufacturing overhead for the Casting Department is closest to:

- A) \$387,260
- B) \$134,300
- C) \$28,900
- D) \$105,400

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248) Marciante Corporation has two production departments, Casting and Finishing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Casting Department's predetermined overhead rate is based on machine-hours and the Finishing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Casting	Finishing
Machine-hours	17,000	10,000
Direct labor-hours	2,000	5,000
Total fixed manufacturing overhead cost	\$ 105,400	\$ 52,000
Variable manufacturing overhead per machine-hour	\$ 1.70	
Variable manufacturing overhead per direct labor-hour		\$ 3.90

The estimated total manufacturing overhead for the Finishing Department is closest to:

- A) \$71,500
- B) \$52,000
- C) \$34,794
- D) \$19,500

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- 249) Jurica Corporation has two production departments, Forming and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Customizing
Machine-hours	19,000	15,000
Direct labor-hours	4,000	6,000
Total fixed manufacturing overhead cost	\$ 100,700	\$ 63,000
Variable manufacturing overhead per machine-hour	\$ 2.00	
Variable manufacturing overhead per direct labor-hour		\$ 3.90

The predetermined overhead rate for the Forming Department is closest to:

- A) \$23.12 per machine-hour
- B) \$2.00 per machine-hour
- C) \$5.30 per machine-hour
- D) \$7.30 per machine-hour

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- 250) Jurica Corporation has two production departments, Forming and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Customizing
Machine-hours	19,000	15,000
Direct labor-hours	4,000	6,000
Total fixed manufacturing overhead cost	\$ 100,700	\$ 63,000
Variable manufacturing overhead per machine-hour	\$ 2.00	
Variable manufacturing overhead per direct labor-hour		\$ 3.90

The predetermined overhead rate for the Customizing Department is closest to:

- A) \$4.55 per direct labor-hour
- B) \$3.90 per direct labor-hour
- C) \$10.50 per direct labor-hour
- D) \$14.40 per direct labor-hour

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- 251) Claybrooks Corporation has two manufacturing departments--Casting and Assembly. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Casting	Assembly	Total
Estimated total machine-hours (MHs)	3,000	2,000	5,000
Estimated total fixed manufacturing overhead cost	\$ 17,700	\$ 5,800	\$ 23,500
Estimated variable manufacturing overhead cost per MH	\$ 1.50	\$ 2.20	

Assume that the company uses a *plantwide* predetermined manufacturing overhead rate based on machine-hours. That predetermined manufacturing overhead rate is closest to:

- A) \$4.70
- B) \$7.40
- C) \$6.48
- D) \$3.70

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- 252) Claybrooks Corporation has two manufacturing departments--Casting and Assembly. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Casting	Assembly	Total
Estimated total machine-hours (MHs)	3,000	2,000	5,000
Estimated total fixed manufacturing overhead cost	\$ 17,700	\$ 5,800	\$ 23,500
Estimated variable manufacturing overhead cost per MH	\$ 1.50	\$ 2.20	

Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both departments. The departmental predetermined overhead rate in the Casting Department is closest to:

- A) \$1.50
- B) \$7.40
- C) \$5.90
- D) \$6.48

- 253) Claybrooks Corporation has two manufacturing departments--Casting and Assembly. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

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	Casting	Assembly	Total
Estimated total machine-hours (MHs)	3,000	2,000	5,000
Estimated total fixed manufacturing overhead cost	\$ 17,700	\$ 5,800	\$ 23,500
Estimated variable manufacturing overhead cost per MH	\$ 1.50	\$ 2.20	

Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both departments. The departmental predetermined overhead rate in the Assembly Department is closest to:

- A) \$2.90
- B) \$6.48
- C) \$5.10
- D) \$2.20

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- 254) Kapanga Manufacturing Corporation uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. The company started the month of October with a zero balance in its work in process and finished goods inventory accounts. During October, Kapanga worked on three jobs and incurred the following direct costs on those jobs:

	Job B18	Job B19	Job C11
Direct materials	\$ 12,000	\$ 25,000	\$ 18,000
Direct labor	\$ 8,000	\$ 10,000	\$ 5,000

Kapanga applies manufacturing overhead at a rate of 150% of direct labor cost. During October, Kapanga completed Jobs B18 and B19 and sold Job B19. Job C11 was incomplete at the end of the month.

What is Kapanga's work in process inventory balance at the end of October?

- A) \$23,000
- B) \$30,500
- C) \$32,000
- D) \$43,000

- 255) Kapanga Manufacturing Corporation uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. The company started the month of October with a zero balance in its work in process and finished goods inventory accounts. During October, Kapanga worked on three jobs and incurred the following direct costs on those jobs:

	Job B18	Job B19	Job C11
Direct materials	\$ 12,000	\$ 25,000	\$ 18,000
Direct labor	\$ 8,000	\$ 10,000	\$ 5,000

Kapanga applies manufacturing overhead at a rate of 150% of direct labor cost. During October, Kapanga completed Jobs B18 and B19 and sold Job B19. Job C11 was incomplete at the end of the month.

What is Kapanga's cost of goods sold for October?

- A) \$60,000
- B) \$40,000
- C) \$50,000
- D) \$35,000

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- 256) Kapanga Manufacturing Corporation uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. The company started the month of October with a zero balance in its work in process and finished goods inventory accounts. During October, Kapanga worked on three jobs and incurred the following direct costs on those jobs:

	Job B18	Job B19	Job C11
Direct materials	\$ 12,000	\$ 25,000	\$ 18,000
Direct labor	\$ 8,000	\$ 10,000	\$ 5,000

Kapanga applies manufacturing overhead at a rate of 150% of direct labor cost. During October, Kapanga completed Jobs B18 and B19 and sold Job B19. Job C11 was incomplete at the end of the month.

What is Kapanga's finished goods inventory balance at the end of October?

- A) \$32,000
- B) \$20,000
- C) \$24,000
- D) \$40,000

- 257) The Lee Corporation uses a job-order costing system. The following data were recorded for June:

Job Number	June 1 Work in Process Inventory	Added During June	
		Direct Materials	Direct Labor
235	\$ 2,500	\$ 600	\$ 400
236	\$ 1,500	\$ 800	\$ 1,000
237	\$ 1,000	\$ 1,200	\$ 1,750
238	\$ 800	\$ 1,500	\$ 2,250

Overhead is charged to production at 80% of direct materials cost. Jobs 235, 237, and 238 were completed during June and transferred to finished goods. Jobs 235 and 238 have been delivered to customers. Actual manufacturing overhead was equal to manufacturing overhead applied. There were no Finished Goods inventories at the beginning of June.

Lee Corporation's cost of goods sold for June was:

- A) \$15,520
- B) \$10,170
- C) \$9,730
- D) \$14,640

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258) The Lee Corporation uses a job-order costing system. The following data were recorded for June:

Job Number	June 1 Work in Process	Added During June	
	Inventory	Direct Materials	Direct Labor
235	\$ 2,500	\$ 600	\$ 400
236	\$ 1,500	\$ 800	\$ 1,000
237	\$ 1,000	\$ 1,200	\$ 1,750
238	\$ 800	\$ 1,500	\$ 2,250

Overhead is charged to production at 80% of direct materials cost. Jobs 235, 237, and 238 were completed during June and transferred to finished goods. Jobs 235 and 238 have been delivered to customers. Actual manufacturing overhead was equal to manufacturing overhead applied. There were no Finished Goods inventories at the beginning of June.

Lee's Work in Process inventory balance on June 30 was:

- A) \$4,100
- B) \$3,940
- C) \$3,300
- D) \$9,450

259) The Lee Corporation uses a job-order costing system. The following data were recorded for June:

Job Number	June 1 Work in Process	Added During June	
	Inventory	Direct Materials	Direct Labor
235	\$ 7,000	\$ 1,500	\$ 2,200
236	\$ 6,000	\$ 1,700	\$ 2,800
237	\$ 5,500	\$ 2,100	\$ 3,550
238	\$ 1,700	\$ 2,400	\$ 4,050

Overhead is charged to production at 80% of direct materials cost. Jobs 235, 237, and 238 were completed during June and transferred to finished goods. Jobs 235 and 238 have been delivered to customers. Actual manufacturing overhead was equal to manufacturing overhead applied. There were no Finished Goods inventories at the beginning of June.

Lee's Finished Goods inventory balance on June 30 was:

- A) \$9,850
- B) \$6,650
- C) \$7,910
- D) \$12,830

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260) The Lee Corporation uses a job-order costing system. The following data were recorded for June:

Job Number	June 1 Work in Process	Added During June	
	Inventory	Direct Materials	Direct Labor
235	\$ 2,500	\$ 600	\$ 400
236	\$ 1,500	\$ 800	\$ 1,000
237	\$ 1,000	\$ 1,200	\$ 1,750
238	\$ 800	\$ 1,500	\$ 2,250

Overhead is charged to production at 80% of direct materials cost. Jobs 235, 237, and 238 were completed during June and transferred to finished goods. Jobs 235 and 238 have been delivered to customers. Actual manufacturing overhead was equal to manufacturing overhead applied. There were no Finished Goods inventories at the beginning of June.

Lee's Finished Goods inventory balance on June 30 was:

- A) \$5,350
- B) \$3,950
- C) \$6,110
- D) \$4,910

261) Toan Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In September the company completed job S80M that consisted of 15,000 units of one of the company's standard products. No other jobs were in process, completed, or sold during the month. The job cost sheet for Job S80M shows the following costs:

Beginning balance	\$ 186,700
Direct materials	\$ 590,500
Direct labor cost	\$ 518,700
Manufacturing overhead cost applied	\$ 629,100

During the month, 15,000 completed units from job S80M were sold.

The cost of goods sold for September is closest to:

- A) \$1,925,000
- B) \$825,000
- C) \$825,120
- D) \$934,300

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- 262) Toan Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In September the company completed job S80M that consisted of 23,000 units of one of the company's standard products. No other jobs were in process, completed, or sold during the month. The job cost sheet for Job S80M shows the following costs:

Beginning balance	\$ 66,700
Direct materials	\$ 494,500
Direct labor cost	\$ 158,700
Manufacturing overhead cost applied	\$ 269,100

During the month, 3,000 completed units from job S80M were sold.

The cost of goods sold for September is closest to:

- A) \$989,000
- B) \$129,000
- C) \$129,120
- D) \$922,300

- 263) Toan Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In September the company completed job S80M that consisted of 23,000 units of one of the company's standard products. No other jobs were in process, completed, or sold during the month. The job cost sheet for Job S80M shows the following costs:

Beginning balance	\$ 66,700
Direct materials	\$ 494,500
Direct labor cost	\$ 158,700
Manufacturing overhead cost applied	\$ 269,100

During the month, 3,000 completed units from job S80M were sold.

The finished goods inventory at the end of September is closest to:

- A) \$989,000
- B) \$129,000
- C) \$802,000
- D) \$860,000

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- 264) Dreckman Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In August, the company completed job M27K that consisted of 17,000 units of one of the company's standard products. No other jobs were in process, completed, or sold during the month. The total manufacturing cost for job M27K according to its job cost sheet was \$1,118,600. During the month, 1,000 completed units from job M27K were sold.

The cost of goods sold for August is closest to:

- A) \$65,440
- B) \$1,043,800
- C) \$1,118,600
- D) \$65,800

- 265) Dreckman Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In August, the company completed job M27K that consisted of 17,000 units of one of the company's standard products. No other jobs were in process, completed, or sold during the month. The total manufacturing cost for job M27K according to its job cost sheet was \$1,118,600. During the month, 1,000 completed units from job M27K were sold.

The finished goods inventory at the end of August is closest to:

- A) \$1,052,800
- B) \$952,800
- C) \$1,118,600
- D) \$65,800

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- 266) Hasting Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In January, the company completed job R96V that consisted of 21,000 units of one of the company's standard products. No other jobs were in process, completed, or sold during the month. The job cost sheet for job R96V shows the following costs:

Beginning balance	\$ 86,100
Direct materials	\$ 533,400
Direct labor cost	\$ 130,200
Manufacturing overhead cost applied	\$ 321,300

During the month, 15,000 completed units from job R96V were sold.

The cost of goods sold for January is closest to:

- A) \$984,900
- B) \$781,950
- C) \$765,000
- D) \$1,071,000

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- 267) Hasting Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In January, the company completed job R96V that consisted of 33,000 units of one of the company's standard products. No other jobs were in process, completed, or sold during the month. The job cost sheet for job R96V shows the following costs:

Beginning balance	\$ 134,100
Direct materials	\$ 1,013,400
Direct labor cost	\$ 370,200
Manufacturing overhead cost applied	\$ 561,300

During the month, 27,000 completed units from job R96V were sold.

The finished goods inventory at the end of January is closest to:

- A) \$378,000
- B) \$1,323,000
- C) \$1,701,000
- D) \$2,079,000

- 268) Hasting Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In January, the company completed job R96V that consisted of 21,000 units of one of the company's standard products. No other jobs were in process, completed, or sold during the month. The job cost sheet for job R96V shows the following costs:

Beginning balance	\$ 86,100
Direct materials	\$ 533,400
Direct labor cost	\$ 130,200
Manufacturing overhead cost applied	\$ 321,300

During the month, 15,000 completed units from job R96V were sold.

The finished goods inventory at the end of January is closest to:

- A) \$306,000
- B) \$459,000
- C) \$765,000
- D) \$1,071,000

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- 269) McAdams Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In April, the company completed job C21F that consisted of 18,000 units of one of the company's standard products. No other jobs were in process, completed, or sold during the month. The total manufacturing cost on job C21F's job cost sheet was \$702,000. During the month, 13,000 completed units from job C21F were sold.

The unit product cost for job C21F is closest to:

- A) \$29.00
- B) \$39.00
- C) \$54.78
- D) \$54.00

- 270) McAdams Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In April, the company completed job C21F that consisted of 18,000 units of one of the company's standard products. No other jobs were in process, completed, or sold during the month. The total manufacturing cost on job C21F's job cost sheet was \$702,000. During the month, 13,000 completed units from job C21F were sold.

The cost of goods sold that would appear on the income statement for April is closest to:

- A) \$507,000
- B) \$195,000
- C) \$312,000
- D) \$702,000

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- 271) McAdams Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In April, the company completed job C21F that consisted of 18,000 units of one of the company's standard products. No other jobs were in process, completed, or sold during the month. The total manufacturing cost on job C21F's job cost sheet was \$702,000. During the month, 13,000 completed units from job C21F were sold.

The finished goods inventory at the end of April is closest to:

- A) \$507,000
- B) \$195,000
- C) \$312,000
- D) \$702,000

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ESSAY. Write your answer in the space provided or on a separate sheet of paper.

- 272) Linnear Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	30,000
Total fixed manufacturing overhead cost	\$144,000
Variable manufacturing overhead per machine-hour	\$ 4.00

Required: Calculate the estimated total manufacturing overhead for the year.

- 273) Dallman Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on 70,000 machine-hours, total fixed manufacturing overhead cost of \$287,000, and a variable manufacturing overhead rate of \$3.50 per machine-hour.

Required:

- Calculate the estimated total manufacturing overhead for the year.
- Calculate the predetermined overhead rate for the year.

- 274) Henkes Corporation bases its predetermined overhead rate on the estimated labor-hours for the upcoming year. At the beginning of the most recently completed year, the company estimated the labor-hours for the upcoming year at 64,000 labor-hours. The estimated variable manufacturing overhead was \$8.30 per labor-hour and the estimated total fixed manufacturing overhead was \$1,043,200. The actual labor-hours for the year turned out to be 67,200 labor-hours.

Required: Compute the company's predetermined overhead rate for the recently completed year.

Note: Round your answer to 2 decimal places.

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275) Henkes Corporation bases its predetermined overhead rate on the estimated labor-hours for the upcoming year. At the beginning of the most recently completed year, the company estimated the labor-hours for the upcoming year at 66,000 labor-hours. The estimated variable manufacturing overhead was \$8.41 per labor-hour and the estimated total fixed manufacturing overhead was \$1,533,180. The actual labor-hours for the year turned out to be 68,400 labor-hours.

Required: Compute the company's predetermined overhead rate for the recently completed year.

276) Crowson Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	47,000
Total fixed manufacturing overhead cost	\$ 401,000
Variable manufacturing overhead per machine-hour	\$ 4.40

Required: Calculate the predetermined overhead rate for the year.

Note: Round your answer to 2 decimal places.

277) Crowson Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	50,000
Total fixed manufacturing overhead cost	\$390,000
Variable manufacturing overhead per machine-hour	\$ 3.60

Required: Calculate the predetermined overhead rate for the year.

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278) Cannizzaro Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on 40,000 machine-hours, total fixed manufacturing overhead cost of \$248,000, and a variable manufacturing overhead rate of \$3.80 per machine-hour.

Required: Calculate the predetermined overhead rate for the year.

279) Quiet Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on 40,000 machine-hours, total fixed manufacturing overhead cost of \$152,000, and a variable manufacturing overhead rate of \$3.10 per machine-hour.

Required: Calculate the estimated total manufacturing overhead for the year.

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280) Mccaughan Corporation bases its predetermined overhead rate on the estimated labor-hours for the upcoming year. Data for the most recently completed year appear below:

Estimates made at the beginning of the year:

Estimated labor-hours	37,000
Estimated variable manufacturing overhead	\$ 4.43 per labor-hour
Estimated total fixed manufacturing overhead	\$ 705,220
Actual labor-hours for the year	32,100

Required: Compute the company's predetermined overhead rate for the recently completed year.

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281) Moscone Corporation bases its predetermined overhead rate on the estimated labor-hours for the upcoming year. At the beginning of the most recently completed year, the company estimated the labor-hours for the upcoming year at 78,000 labor-hours. The estimated variable manufacturing overhead was \$9.99 per labor-hour and the estimated total fixed manufacturing overhead was \$985,920.

Required: Compute the company's predetermined overhead rate.

282) Lightner Corporation bases its predetermined overhead rate on the estimated machine-hours for the upcoming year. Data for the upcoming year appear below:

Estimated machine-hours	50,000
Estimated variable manufacturing overhead	\$ 8.82 per machine-hour
Estimated total fixed manufacturing overhead	\$ 1,077,000

Required: Compute the company's predetermined overhead rate.

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283) Florek Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on the following data:

Total direct labor-hours	10,000
Total fixed manufacturing overhead cost	\$31,000
Variable manufacturing overhead per direct labor-hour	\$ 2.50

Required:

- Calculate the estimated total manufacturing overhead for the year.
- Calculate the predetermined overhead rate for the year.

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284) Meenach Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on 51,000 direct labor-hours, total fixed manufacturing overhead cost of \$76,500, and a variable manufacturing overhead rate of \$3.80 per direct labor-hour. Recently Job X387 was completed and required 120 direct labor-hours.

Required: Calculate the amount of overhead applied to Job X387.

Note: Do not round intermediate calculations.

285) Meenach Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on 80,000 direct labor-hours, total fixed manufacturing overhead cost of \$160,000, and a variable manufacturing overhead rate of \$2.30 per direct labor-hour. Recently Job X387 was completed and required 120 direct labor-hours.

Required: Calculate the amount of overhead applied to Job X387.

Note: Do not round intermediate calculations.

286) Weakley Corporation uses a predetermined overhead rate that was based on estimated total fixed manufacturing overhead of \$358,000 and 20,000 machine-hours for the period. The company incurred actual total fixed manufacturing overhead of \$382,000 and 18,300 total machine-hours during the period.

Required: Determine the amount of manufacturing overhead that would have been applied to all jobs during the period.

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287) Fillmore Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on 62,000 direct labor-hours, total fixed manufacturing overhead cost of \$96,000, and a variable manufacturing overhead rate of \$3.60 per direct labor-hour. Recently Job X809 was completed and required 100 direct labor-hours.

Required:

- Calculate the estimated total manufacturing overhead for the year. Note: Do not round intermediate calculations.
- Calculate the predetermined overhead rate for the year. Note: Do not round intermediate calculations.
- Calculate the amount of overhead applied to Job X809. Note: Do not round intermediate calculations.

288) Fillmore Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on 60,000 direct labor-hours, total fixed manufacturing overhead cost of \$96,000, and a variable manufacturing overhead rate of \$3.30 per direct labor-hour. Recently Job X809 was completed and required 100 direct labor-hours.

Required:

- Calculate the estimated total manufacturing overhead for the year.
- Calculate the predetermined overhead rate for the year.
- Calculate the amount of overhead applied to Job X809.

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289) Thrall Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	10,000
Total fixed manufacturing overhead cost	\$50,000
Variable manufacturing overhead per machine-hour	\$ 3.90

Recently Job K125 was completed and required 160 machine-hours.

Required: Calculate the amount of overhead applied to Job K125.

290) Verry Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on the following data:

Total direct labor-hours	60,000
Total fixed manufacturing overhead cost	\$342,000
Variable manufacturing overhead per direct labor-hour	\$ 2.40

Recently Job X711 was completed and required 90 direct labor-hours.

Required: TBEXAM.COM

- Calculate the estimated total manufacturing overhead for the year.
- Calculate the predetermined overhead rate for the year.
- Calculate the amount of overhead applied to Job X711.

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291) Trevigne Corporation uses a predetermined overhead rate base on machine-hours that it recalculates at the beginning of each year. The company has provided the following data for the most recent year.

Estimated total fixed manufacturing overhead from the beginning of the year	\$ 114,000
Estimated activity level from the beginning of the year	10,000 machine-hours
Actual total fixed manufacturing overhead	\$ 104,000
Actual activity level	9,400 machine-hours

Required: Determine the amount of manufacturing overhead that would have been applied to all jobs during the period.

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292) Luarca Corporation has two manufacturing departments--Casting and Customizing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Casting	Customizing	Total
Estimated total machine-hours (MHs)	2,000	3,000	5,000
Estimated total fixed manufacturing overhead cost	\$11,600	\$7,200	\$18,800
Estimated variable manufacturing overhead cost per MH	\$ 1.90	\$ 2.80	

During the most recent month, the company started and completed two jobs--Job F and Job L. There were no beginning inventories. Data concerning those two jobs follow:

	Job F	Job L
Direct materials	\$10,600	\$6,600
Direct labor cost	\$24,400	\$8,600
Casting machine-hours	1,400	600
Customizing machine-hours	1,200	1,800

Required: Assume that the company uses a *plantwide* predetermined manufacturing overhead rate based on machine-hours and uses a markup of 50% on manufacturing cost to establish selling prices. Calculate the selling prices for Job F and Job L.

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293) Lamberson Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	50,000
Total fixed manufacturing overhead cost	\$460,000
Variable manufacturing overhead per machine-hour	\$ 3.10

Recently Job P647 was completed with the following characteristics:

Number of units in the job	50
Total machine-hours	150
Direct materials	\$ 740
Direct labor cost	\$6,000

Required:

- Calculate the amount of overhead applied to Job P647.
- Calculate the total job cost for Job P647.
- Calculate the unit product cost for Job P647.

294) Mcewan Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on 35,000 direct labor-hours, total fixed manufacturing overhead cost of \$273,000, and a variable manufacturing overhead rate of \$3.00 per direct labor-hour. Job X941, which was for 50 units of a custom product, was recently completed. The job cost sheet for the job contained the following data:

Total direct labor-hours	250
Direct materials	\$ 500
Direct labor cost	\$6,900

Required: Calculate the selling price for Job X941 if the company marks up its unit product costs by 20%.

Note: Round intermediate calculations and final answer to 2 decimal places.

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- 295) Mcewan Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on 20,000 direct labor-hours, total fixed manufacturing overhead cost of \$182,000, and a variable manufacturing overhead rate of \$2.50 per direct labor-hour. Job X941, which was for 50 units of a custom product, was recently completed. The job cost sheet for the job contained the following data:
- | | |
|---------------------------------|----------|
| Total direct labor-hours | 250 |
| Direct materials | \$ 740 |
| Direct labor cost | \$ 6,500 |
- Required:** Calculate the selling price for Job X941 if the company marks up its unit product costs by 20%.
- Note:** Round intermediate calculations and final answer to 2 decimal places.

- 296) Teasley Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on 70,000 machine-hours, total fixed manufacturing overhead cost of \$630,000, and a variable manufacturing overhead rate of \$3.40 per machine-hour. Job X159 was recently completed. The job cost sheet for the job contained the following data:
- | | |
|----------------------------|---------|
| Total machine-hours | 200 |
| Direct materials | \$ 670 |
| Direct labor cost | \$7,800 |
- Required:** Calculate the total job cost for Job X159.

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- 297) Alsobrooks Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	47,000
Total fixed manufacturing overhead cost	\$ 164,500
Variable manufacturing overhead per machine-hour	\$ 4.00

Recently Job M242 was completed with the following characteristics:

Number of units in the job	20
Total machine-hours	70
Direct materials	\$ 725
Direct labor cost	\$ 1,700

Required:

- Calculate the total job cost for Job M242. Note: Do not round intermediate calculations.
- Calculate the unit product cost for Job M242. Note: Do not round intermediate calculations.

- 298) Alsobrooks Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	40,000
Total fixed manufacturing overhead cost	\$156,000
Variable manufacturing overhead per machine-hour	\$ 2.20

Recently Job M242 was completed with the following characteristics:

Number of units in the job	20
Total machine-hours	60
Direct materials	\$ 725
Direct labor cost	\$1,680

Required:

- Calculate the total job cost for Job M242.
- Calculate the unit product cost for Job M242.

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299) Ryans Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	11,000
Total fixed manufacturing overhead cost	\$ 76,000
Variable manufacturing overhead per machine-hour	\$ 3.70

Recently Job P512 was completed with the following characteristics:

Number of units in the job	25
Total machine-hours	70
Direct materials	\$ 730
Direct labor cost	\$ 1,700

Required:

- Calculate the predetermined overhead rate for the year. Note: Do not round intermediate calculations.
- Calculate the amount of overhead applied to Job P512. Note: Do not round intermediate calculations.
- Calculate the total job cost for Job P512. Note: Do not round intermediate calculations.
- Calculate the unit product cost for Job P512. Note: Do not round intermediate calculations.

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300) Ryans Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	10,000
Total fixed manufacturing overhead cost	\$71,000
Variable manufacturing overhead per machine-hour	\$ 2.50

Recently Job P512 was completed with the following characteristics:

Number of units in the job	30
Total machine-hours	60
Direct materials	\$ 870
Direct labor cost	\$2,400

Required:

- Calculate the predetermined overhead rate for the year.
- Calculate the amount of overhead applied to Job P512.
- Calculate the total job cost for Job P512.
- Calculate the unit product cost for Job P512.

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301) Lezo Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on 40,000 machine-hours, total fixed manufacturing overhead cost of \$136,000, and a variable manufacturing overhead rate of \$2.90 per machine-hour. Job A290, which was for 60 units of a custom product, was recently completed. The job cost sheet for the job contained the following data:

Total machine-hours	300
Direct materials	\$ 585
Direct labor cost	\$7,200

Required:

- Calculate the estimated total manufacturing overhead for the year.
- Calculate the predetermined overhead rate for the year.
- Calculate the amount of overhead applied to Job A290.
- Calculate the total job cost for Job A290.

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- 302) Whitlatch Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	60,000
Total fixed manufacturing overhead cost	\$342,000
Variable manufacturing overhead per machine-hour	\$ 2.70

Recently Job M238 was completed with the following characteristics:

Number of units in the job	70
Total machine-hours	140
Direct materials	\$ 945
Direct labor cost	\$2,800

Required: Calculate the total job cost for Job M238.

- 303) Obermeyer Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on 10,000 direct labor-hours, total fixed manufacturing overhead cost of \$96,000, and a variable manufacturing overhead rate of \$3.60 per direct labor-hour. Job A735, which was for 40 units of a custom product, was recently completed. The job cost sheet for the job contained the following data:

Total direct labor-hours	200
Direct materials	\$ 540
Direct labor cost	\$6,400

Required:

- Calculate the amount of overhead applied to Job A735.
- Calculate the total job cost for Job A735.
- Calculate the unit product cost for Job A735.

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- 304) Olmscheid Corporation has two manufacturing departments--Molding and Customizing. The company used the following data at the beginning of the period to calculate predetermined overhead rates:

	Molding	Customizing	Total
Estimated total machine-hours (MHs)	5,000	5,000	10,000
Estimated total fixed manufacturing overhead cost	\$ 25,000	\$ 20,000	\$ 45,000
Estimated variable manufacturing overhead cost per machine-hour	\$ 1.80	\$ 2.70	

During the period, the company started and completed two jobs--Job F and Job K. There were no beginning inventories. Data concerning those two jobs follow:

	Job F	Job K
Direct materials	\$ 12,700	\$ 6,400
Direct labor cost	\$ 19,100	\$ 7,900
Forming machine-hours	3,900	2,150
Customizing machine-hours	2,500	3,550

Required:

- Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate that overhead rate. Note: Round your answer to 2 decimal places.
- Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate the amount of manufacturing overhead applied to Job F. Note: Do not round intermediate calculations.
- Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate the amount of manufacturing overhead applied to Job K. Note: Do not round intermediate calculations.
- Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate the total manufacturing cost assigned to Job F. Note: Do not round intermediate calculations.
- Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate the total manufacturing cost assigned to Job K. Note: Round your answer to 2 decimal places.
- Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours and uses a markup of 30% on manufacturing cost to establish selling prices. Calculate the selling price for Job F. Note: Round your answer to 2 decimal places.

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- g. Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours and uses a markup of 30% on manufacturing cost to establish selling prices. Calculate the selling price for Job K. Note: Do not round intermediate calculations.
- h. Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. If both jobs were sold during the month, what was the company's cost of goods sold for the month? Note: Do not round intermediate calculations.

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- 305) Olmscheid Corporation has two manufacturing departments--Molding and Customizing. The company used the following data at the beginning of the period to calculate predetermined overhead rates:

	Molding	Customizing	Total
Estimated total machine-hours (MHs)	5,000	5,000	10,000
Estimated total fixed manufacturing overhead cost	\$21,000	\$14,000	\$ 35,000
Estimated variable manufacturing overhead cost per MH	\$ 1.50	\$ 2.40	

During the period, the company started and completed two jobs--Job F and Job K. There were no beginning inventories. Data concerning those two jobs follow:

	Job F	Job K
Direct materials	\$ 12,700	\$ 6,400
Direct labor cost	\$ 19,100	\$ 7,900
Molding machine-hours	3,400	1,600
Customizing machine-hours	2,000	3,000

Required:

- Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate that overhead rate.
- Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate the amount of manufacturing overhead applied to Job F.
- Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate the amount of manufacturing overhead applied to Job K.
- Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate the total manufacturing cost assigned to Job F.
- Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate the total manufacturing cost assigned to Job K.
- Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours and uses a markup of 30% on manufacturing cost to establish selling prices. Calculate the selling price for Job F.
- Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours and uses a markup of 30% on manufacturing cost to establish selling prices. Calculate the selling price for Job K.
- Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. If both jobs were sold during the month, what was the company's cost of goods sold for the month?

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306) Cardoso Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on 70,000 machine-hours, total fixed manufacturing overhead cost of \$308,000, and a variable manufacturing overhead rate of \$2.10 per machine-hour. Job M556, which was for 50 units of a custom product, was recently completed. The job cost sheet for the job contained the following data:

Total machine-hours	100
Direct materials	\$ 555
Direct labor cost	\$2,700

Required:

- Calculate the total job cost for Job M556.
- Calculate the unit product cost for Job M556.

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- 307) Dietzen Corporation has two manufacturing departments--Casting and Finishing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Casting	Finishing	Total
Estimated total machine-hours (MHs)	4,000	6,000	10,000
Estimated total fixed manufacturing overhead cost	\$ 18,000	\$ 18,000	\$ 36,000
Estimated variable manufacturing overhead cost per MH	\$ 1.50	2.30	

During the most recent month, the company started and completed two jobs--Job D and Job J. There were no beginning inventories. Data concerning those two jobs follow:

	Job D	Job J
Direct materials	\$ 14,300	\$ 6,800
Direct labor cost	\$ 21,700	\$ 8,800
Casting machine-hours	2,700	1,300
Finishing machine-hours	2,400	3,600

Required:

- Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate the total manufacturing cost assigned to Job D.
- Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate the total manufacturing cost assigned to Job J.

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308) Posson Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on 20,000 machine-hours, total fixed manufacturing overhead cost of \$130,000, and a variable manufacturing overhead rate of \$3.00 per machine-hour. Job K789, which was for 10 units of a custom product, was recently completed. The job cost sheet for the job contained the following data:

Total machine-hours	30
Direct materials	\$ 775
Direct labor cost	\$1,170

Required:

- Calculate the predetermined overhead rate for the year.
- Calculate the amount of overhead applied to Job K789.
- Calculate the total job cost for Job K789.
- Calculate the unit product cost for Job K789

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309) Rondo Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	30,000
Total fixed manufacturing overhead cost	\$252,000
Variable manufacturing overhead per machine-hour	\$ 2.90

Recently Job T506 was completed with the following characteristics:

Number of units in the job	70
Total machine-hours	210
Direct materials	\$ 665
Direct labor cost	\$6,720

Required:

- Calculate the estimated total manufacturing overhead for the year.
- Calculate the predetermined overhead rate for the year.
- Calculate the amount of overhead applied to Job T506.
- Calculate the total job cost for Job T506.
- Calculate the unit product cost for Job T506.
- Calculate the selling price for Job T506 if the company marks up its unit product costs by 20%.

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310) Leadley Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on the following data:

Total direct labor-hours	10,000
Total fixed manufacturing overhead cost	\$76,000
Variable manufacturing overhead per direct labor-hour	\$ 2.10

Recently Job X701 was completed with the following characteristics:

Number of units in the job	90
Total direct labor-hours	270
Direct materials	\$ 590
Direct labor cost	\$6,480

Required:

- Calculate the estimated total manufacturing overhead for the year.
- Calculate the predetermined overhead rate for the year.
- Calculate the amount of overhead applied to Job X701.
- Calculate the total job cost for Job X701

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311) Pasko Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on the following data:

Total direct labor-hours	30,000
Total fixed manufacturing overhead cost	\$258,000
Variable manufacturing overhead per direct labor-hour	\$ 2.00

Recently Job P660 was completed with the following characteristics:

Number of units in the job	50
Total direct labor-hours	250
Direct materials	\$ 645
Direct labor cost	\$10,000

Required: Calculate the selling price for Job P660 if the company marks up its unit product costs by 20%.

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312) Leeds Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	50,000
Total fixed manufacturing overhead cost	\$215,000
Variable manufacturing overhead per machine-hour	\$ 3.80

Recently Job T496 was completed with the following characteristics:

Number of units in the job	80
Total machine-hours	240
Direct materials	\$ 735
Direct labor cost	\$8,880

Required:

- Calculate the estimated total manufacturing overhead for the year.
- Calculate the predetermined overhead rate for the year.
- Calculate the amount of overhead applied to Job T496.
- Calculate the total job cost for Job T496.
- Calculate the unit product cost for Job T496.

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313) Petru Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on the following data:

Total machine-hours	70,000
Total fixed manufacturing overhead cost	\$525,000
Variable manufacturing overhead per machine-hour	\$ 2.30

Recently Job P987 was completed with the following characteristics:

Number of units in the job	20
Total machine-hours	80
Direct materials	\$ 630
Direct labor cost	\$2,080

Required: Calculate the unit product cost for Job P987.

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- 314) Franta Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on direct labor-hours. The company based its predetermined overhead rate for the current year on 70,000 direct labor-hours, total fixed manufacturing overhead cost of \$238,000, and a variable manufacturing overhead rate of \$2.70 per direct labor-hour. Job P873, which was for 50 units of a custom product, was recently completed. The job cost sheet for the job contained the following data:

Total direct labor-hours	200
Direct materials	\$ 630
Direct labor cost	\$4,800

Required: Calculate the unit product cost for Job P873.

- 315) Temby Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on 10,000 machine-hours, total fixed manufacturing overhead cost of \$88,000, and a variable manufacturing overhead rate of \$3.20 per machine-hour. Job K418, which was for 50 units of a custom product, was recently completed. The job cost sheet for the job contained the following data:

Total machine-hours	150
Direct materials	\$ 580
Direct labor cost	\$3,900

Required:

- Calculate the estimated total manufacturing overhead for the year.
- Calculate the predetermined overhead rate for the year.
- Calculate the amount of overhead applied to Job K418.
- Calculate the total job cost for Job K418.
- Calculate the unit product cost for Job K418.
- Calculate the selling price for Job K418 if the company marks up its unit product costs by 30%.

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316) Saxon Corporation uses a job-order costing system with a single plantwide predetermined overhead rate based on machine-hours. The company based its predetermined overhead rate for the current year on 10,000 machine-hours, total fixed manufacturing overhead cost of \$91,000, and a variable manufacturing overhead rate of \$2.40 per machine-hour. Job K373, which was for 60 units of a custom product, was recently completed. The job cost sheet for the job contained the following data:

Total machine-hours	120
Direct materials	\$ 645
Direct labor cost	\$3,720

Required:

- Calculate the estimated total manufacturing overhead for the year.
- Calculate the predetermined overhead rate for the year.
- Calculate the amount of overhead applied to Job K373.
- Calculate the total job cost for Job K373.
- Calculate the unit product cost for Job K373

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- 317) Kluth Corporation has two manufacturing departments--Molding and Customizing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Molding	Customizing	Total
Estimated total machine-hours (MHs)	7,000	2,400	9,400
Estimated total fixed manufacturing overhead cost	\$18,200	\$9,600	\$27,800
Estimated variable manufacturing overhead cost per MH	\$1.50	\$3.00	

During the most recent month, the company started and completed two jobs--Job C and Job M. There were no beginning inventories. Data concerning those two jobs follow:

	Job C	Job M
Direct materials	\$ 15,300	\$ 9,000
Direct labor cost	\$ 22,100	\$ 9,100
Molding machine-hours	2,500	4,500
Customizing machine-hours	1,400	1,000

Required: Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. Further assume that the company uses a markup of 20% on manufacturing cost to establish selling prices. Calculate the selling prices for Job C and for Job M.

Note: Do not round intermediate calculations.

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- 318) Kluth Corporation has two manufacturing departments--Molding and Customizing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Molding	Customizing	Total
Estimated total machine-hours (MHs)	3,000	2,000	5,000
Estimated total fixed manufacturing overhead cost	\$15,900	\$4,200	\$20,100
Estimated variable manufacturing overhead cost per MH	\$1.20	\$2.40	

During the most recent month, the company started and completed two jobs--Job C and Job M. There were no beginning inventories. Data concerning those two jobs follow:

	Job C	Job M
Direct materials	\$ 15,600	\$ 8,600
Direct labor cost	\$ 25,100	\$ 8,300
Molding machine-hours	2,000	1,000
Customizing machine-hours	800	1,200

Required: Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. Further assume that the company uses a markup of 20% on manufacturing cost to establish selling prices. Calculate the selling prices for Job C and for Job M.

Note: Do not round intermediate calculations.

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- 319) Amason Corporation has two production departments, Forming and Assembly. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Assembly Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Assembly
Machine-hours	16,000	11,000
Direct labor-hours	2,000	6,000
Total fixed manufacturing overhead cost	\$102,400	\$66,000
Variable manufacturing overhead per machine-hour	\$ 1.90	
Variable manufacturing overhead per direct labor-hour		\$ 3.80

During the current month the company started and finished Job A950. The following data were recorded for this job:

Job A950:	Forming	Assembly
Machine-hours	50	20
Direct labor-hours	20	40
Direct materials	\$ 665	\$ 415
Direct labor cost	\$ 520	\$1,040

Required: Calculate the selling price for Job A950 if the company marks up its unit product costs by 30% to determine selling prices.

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- 320) Dancel Corporation has two production departments, Milling and Finishing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Milling Department's predetermined overhead rate is based on machine-hours and the Finishing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Milling	Finishing
Machine-hours	17,000	14,000
Direct labor-hours	1,000	6,000
Total fixed manufacturing overhead cost	\$91,800	\$64,200
Variable manufacturing overhead per machine-hour	\$ 2.00	
Variable manufacturing overhead per direct labor-hour		\$ 3.40

During the current month the company started and finished Job M565. The following data were recorded for this job:

Job M565:	Milling	Finishing
Machine-hours	70	20
Direct labor-hours	10	40
Direct materials	\$ 750	\$ 360
Direct labor cost	\$ 340	\$1,360

Required:

- Calculate the total amount of overhead applied to Job M565 in both departments.
- Calculate the total job cost for Job M565.
- Calculate the selling price for Job M565 if the company marks up its unit product costs by 20% to determine selling prices.

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- 321) Pangle Corporation has two production departments, Forming and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Customizing
Machine-hours	16,000	12,000
Direct labor-hours	4,000	9,000
Total fixed manufacturing overhead cost	\$91,200	\$99,000
Variable manufacturing overhead per machine-hour	\$ 2.10	
Variable manufacturing overhead per direct labor-hour		\$ 3.10

During the current month the company started and finished Job M109. The following data were recorded for this job:

Job M109:	Forming	Customizing
Machine-hours	50	30
Direct labor-hours	20	50
Direct materials	\$ 915	\$355
Direct labor cost	\$ 620	\$1,550

Required: Calculate the total job cost for Job M109.

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- 322) Vasilopoulos Corporation has two production departments, Casting and Assembly. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Casting Department's predetermined overhead rate is based on machine-hours and the Assembly Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Casting	Assembly
Machine-hours	17,000	11,000
Direct labor-hours	3,000	6,000
Total fixed manufacturing overhead cost	\$119,000	\$51,000
Variable manufacturing overhead per machine-hour	\$ 2.10	
Variable manufacturing overhead per direct labor-hour		\$ 3.10

During the current month the company started and finished Job A182. The following data were recorded for this job:

Job A182:	Casting	Assembly
Machine-hours	50	20
Direct labor-hours	10	50
Direct materials	\$ 895	\$ 365
Direct labor cost	\$ 240	\$1,200

Required:

- Calculate the estimated total manufacturing overhead for the Casting Department.
- Calculate the estimated total manufacturing overhead for the Assembly Department.
- Calculate the predetermined overhead rate for the Casting Department.
- Calculate the predetermined overhead rate for the Assembly Department.
- Calculate the total amount of overhead applied to Job A182 in both departments.
- Calculate the total job cost for Job A182.
- Calculate the selling price for Job A182 if the company marks up its unit product costs by 20% to determine selling prices.

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- 323) Hultquist Corporation has two manufacturing departments--Forming and Customizing. The company used the following data at the beginning of the period to calculate predetermined overhead rates:

	Forming	Customizing	Total
Estimated total machine-hours (MHs)	5,000	5,000	10,000
Estimated total fixed manufacturing overhead cost	\$17,500	\$17,000	\$34,500
Estimated variable manufacturing overhead cost per MH	\$ 1.50	\$ 3.00	

During the period, the company started and completed two jobs--Job C and Job L. Data concerning those two jobs follow:

	Job C	Job L
Direct materials	\$ 14,500	\$ 8,200
Direct labor cost	\$ 21,400	\$ 8,200
Forming machine-hours	1,250	3,750
Customizing machine-hours	1,250	3,750

Required:

- Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate that overhead rate. Note: Round your answer to 2 decimal places.
- Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate the amount of manufacturing overhead applied to Job L. Note: Do not round intermediate calculations.
- Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate the total manufacturing cost assigned to Job L. Note: Do not round intermediate calculations.
- Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours and uses a markup of 20% on manufacturing cost to establish selling prices. Calculate the selling price for Job L. Note: Do not round intermediate calculations.
- Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both departments. What is the departmental predetermined overhead rate in the Forming department? Note: Round your answer to 2 decimal places.
- Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. What is the departmental predetermined overhead rate in the Customizing department? Note: Round your answer to 2 decimal places.

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- g. Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. How much manufacturing overhead will be applied to Job L? Note: Do not round intermediate calculations.
- h. Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. Further assume that the company uses a markup of 20% on manufacturing cost to establish selling prices. Calculate the selling price for Job L. Note: Do not round intermediate calculations.

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- 324) Hultquist Corporation has two manufacturing departments--Forming and Customizing. The company used the following data at the beginning of the period to calculate predetermined overhead rates:

	Forming	Customizing	Total
Estimated total machine-hours (MHs)	9,000	1,000	10,000
Estimated total fixed manufacturing overhead cost	\$50,400	\$2,600	\$53,000
Estimated variable manufacturing overhead cost per MH	\$ 1.70	\$ 2.10	

During the period, the company started and completed two jobs--Job C and Job L. Data concerning those two jobs follow:

	Job C	Job L
Direct materials	\$ 15,100	\$ 6,900
Direct labor cost	\$ 20,800	\$ 8,500
Forming machine-hours	6,100	2,900
Customizing machine-hours	400	600

Required:

- Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate that overhead rate. Note: Round your answer to 2 decimal places. TBEXAM.COM
- Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate the amount of manufacturing overhead applied to Job L. Note: Do not round intermediate calculations.
- Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate the total manufacturing cost assigned to Job L. Note: Do not round intermediate calculations.
- Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours and uses a markup of 80% on manufacturing cost to establish selling prices. Calculate the selling price for Job L. Note: Do not round intermediate calculations.
- Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both departments. What is the departmental predetermined overhead rate in the Forming department? Note: Round your answer to 2 decimal places.
- Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. What is the departmental predetermined overhead rate in the Customizing department? Note: Round your answer to 2 decimal places.

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- g. Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. How much manufacturing overhead will be applied to Job L? Note: Do not round intermediate calculations.
- h. Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. Further assume that the company uses a markup of 80% on manufacturing cost to establish selling prices. Calculate the selling price for Job L. Note: Do not round intermediate calculations.

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- 325) Carcana Corporation has two manufacturing departments--Machining and Finishing. The company used the following data at the beginning of the period to calculate predetermined overhead rates:

	Machining	Finishing	Total
Estimated total machine-hours (MHs)	1,000	4,000	5,000
Estimated total fixed manufacturing overhead cost	\$4,200	\$8,800	\$13,000
Estimated variable manufacturing overhead cost per MH	\$ 1.90	\$ 2.90	

During the period, the company started and completed two jobs--Job E and Job G. Data concerning those two jobs follow:

	Job E	Job G
Direct materials	\$ 11,800	\$ 8,000
Direct labor cost	\$ 19,200	\$ 6,700
Machining machine-hours	700	300
Finishing machine-hours	1,600	2,400

Required:

- Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both departments. What is the departmental predetermined overhead rate in the Machining department?
- Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. What is the departmental predetermined overhead rate in the Finishing department?
- Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. How much manufacturing overhead will be applied to Job E?
- Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. How much manufacturing overhead will be applied to Job G?
- Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. Further assume that the company uses a markup of 80% on manufacturing cost to establish selling prices. Calculate the selling price for Job E.
- Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. Further assume that the company uses a markup of 80% on manufacturing cost to establish selling prices. Calculate the selling price for Job G.

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- g. Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. If both jobs were sold during the month, what was the company's cost of goods sold for the month?

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- 326) Braegelmann Corporation has two production departments, Casting and Assembly. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Casting Department's predetermined overhead rate is based on machine-hours and the Assembly Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Casting	Assembly
Machine-hours	20,000	14,000
Direct labor-hours	4,000	6,000
Total fixed manufacturing overhead cost	\$110,000	\$65,400
Variable manufacturing overhead per machine-hour	\$ 1.60	
Variable manufacturing overhead per direct labor-hour		\$ 4.50

During the current month the company started and finished Job K246. The following data were recorded for this job:

Job K246:		Casting	Assembly
Machine-hours	TBEXAM.COM	60	30
Direct labor-hours		20	40
Direct materials		\$ 950	\$ 305
Direct labor cost		\$ 460	\$ 920

Required:

- Calculate the estimated total manufacturing overhead for the Casting Department.
- Calculate the estimated total manufacturing overhead for the Assembly Department.
- Calculate the predetermined overhead rate for the Casting Department.
- Calculate the predetermined overhead rate for the Assembly Department.
- Calculate the amount of overhead applied in the Casting Department to Job K246.
- Calculate the amount of overhead applied in the Assembly Department to Job K246.
- Calculate the total job cost for Job K246.
- Calculate the selling price for Job K246 if the company marks up its unit product costs by 40% to determine selling prices.

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- 327) Matrejek Corporation has two manufacturing departments--Forming and Customizing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Forming	Customizing	Total
Estimated total machine-hours (MHs)	8,000	2,000	10,000
Estimated total fixed manufacturing overhead cost	\$36,800	\$4,800	\$41,600
Estimated variable manufacturing overhead cost per MH	\$ 1.60	\$ 2.90	

During the most recent month, the company started and completed two jobs--Job D and Job K. There were no beginning inventories. Data concerning those two jobs follow:

	Job D	Job K
Direct materials	\$15,600	\$6,900
Direct labor cost	\$19,100	\$8,700
Forming machine-hours	5,400	2,600
Customizing machine-hours	800	1,200

Required:

- Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours and uses a markup of 50% on manufacturing cost to establish selling prices. Calculate the selling price for Job D.
- Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours and uses a markup of 50% on manufacturing cost to establish selling prices. Calculate the selling price for Job K.
- Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. Further assume that the company uses a markup of 50% on manufacturing cost to establish selling prices. Calculate the selling price for Job D.
- Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. Further assume that the company uses a markup of 50% on manufacturing cost to establish selling prices. Calculate the selling price for Job K.

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- 328) Harnett Corporation has two manufacturing departments--Molding and Assembly. The company used the following data at the beginning of the period to calculate predetermined overhead rates:

	Molding	Assembly	Total
Estimated total machine-hours (MHs)	2,000	8,000	10,000
Estimated total fixed manufacturing overhead cost	\$8,800	\$39,200	\$48,000
Estimated variable manufacturing overhead cost per MH	\$ 1.50	\$ 3.00	

During the period, the company started and completed two jobs--Job E and Job M. Data concerning those two jobs follow:

	Job E	Job M
Direct materials	\$ 13,900	\$ 7,800
Direct labor cost	\$ 21,000	\$ 7,800
Molding machine-hours	1,250	750
Assembly machine-hours	1,250	6,750

Required:

- Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate that overhead rate. Note: Round your answer to 2 decimal places. TBEXAM.COM
- Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate the amount of manufacturing overhead applied to Job E. Note: Do not round intermediate calculations.
- Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate the total manufacturing cost assigned to Job E. Note: Do not round intermediate calculations.
- Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours and uses a markup of 20% on manufacturing cost to establish selling prices. Calculate the selling price for Job E. Note: Do not round intermediate calculations.
- Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both departments. What is the departmental predetermined overhead rate in the Molding department? Note: Round your answer to 2 decimal places.
- Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. What is the departmental predetermined overhead rate in the Assembly department? Note: Round your answer to 2 decimal places.

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- g. Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. How much manufacturing overhead will be applied to Job E? Note: Do not round intermediate calculations.
- h. Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. Further assume that the company uses a markup of 20% on manufacturing cost to establish selling prices. Calculate the selling price for Job E. Note: Do not round intermediate calculations.

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- 329) Harnett Corporation has two manufacturing departments--Molding and Assembly. The company used the following data at the beginning of the period to calculate predetermined overhead rates:

	Molding	Assembly	Total
Estimated total machine-hours (MHs)	5,000	5,000	10,000
Estimated total fixed manufacturing overhead cost	\$29,000	\$13,500	\$42,500
Estimated variable manufacturing overhead cost per MH	\$ 1.20	\$ 2.30	

During the period, the company started and completed two jobs--Job E and Job M. Data concerning those two jobs follow:

	Job E	Job M
Direct materials	\$ 14,300	\$ 9,400
Direct labor cost	\$ 22,800	\$ 8,900
Molding machine-hours	3,400	1,600
Assembly machine-hours	2,000	3,000

Required:

- Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate that overhead rate. Note: Round your answer to 2 decimal places. TBEXAM.COM
- Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate the amount of manufacturing overhead applied to Job E. Note: Do not round intermediate calculations.
- Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate the total manufacturing cost assigned to Job E. Note: Do not round intermediate calculations.
- Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours and uses a markup of 60% on manufacturing cost to establish selling prices. Calculate the selling price for Job E. Note: Do not round intermediate calculations.
- Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both departments. What is the departmental predetermined overhead rate in the Molding department? Note: Round your answer to 2 decimal places.
- Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. What is the departmental predetermined overhead rate in the Assembly department? Note: Round your answer to 2 decimal places.

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- g. Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. How much manufacturing overhead will be applied to Job E? Note: Do not round intermediate calculations.
- h. Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. Further assume that the company uses a markup of 60% on manufacturing cost to establish selling prices. Calculate the selling price for Job E. Note: Do not round intermediate calculations.

330) Bulla Corporation has two production departments, Machining and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Customizing
Machine-hours	14,000	20,000
Direct labor-hours	4,000	5,000
Total fixed manufacturing overhead cost	\$65,800	\$90,000
Variable manufacturing overhead per machine-hour	\$ 1.00	
Variable manufacturing overhead per direct labor-hour		\$ 2.00

During the current month the company started and finished Job K369. The following data were recorded for this job:

Job K369:	Machining	Customizing
Machine-hours	60	30
Direct labor-hours	30	60

Required: Calculate the total amount of overhead applied to Job K369 in both departments.

Note: Do not round intermediate calculations.

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- 331) Bulla Corporation has two production departments, Machining and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Machining Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Machining	Customizing
Machine-hours	19,000	13,000
Direct labor-hours	2,000	9,000
Total fixed manufacturing overhead cost	\$98,800	\$84,600
Variable manufacturing overhead per machine-hour	\$ 2.10	
Variable manufacturing overhead per direct labor-hour		\$ 3.60

During the current month the company started and finished Job K369. The following data were recorded for this job:

Job K369:	Machining	Customizing
Machine-hours	90	10
Direct labor-hours	20	50

Required: Calculate the total amount of overhead applied to Job K369 in both departments.

Note: Do not round intermediate calculations.

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- 332) Bierce Corporation has two manufacturing departments--Machining and Finishing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Machining	Finishing	Total
Estimated total machine-hours (MHs)	6,000	4,000	10,000
Estimated total fixed manufacturing overhead cost	\$15,600	\$21,600	\$37,200
Estimated variable manufacturing overhead cost per MH	\$ 1.50	\$ 5.00	

During the most recent month, the company started and completed two jobs--Job B and Job K. There were no beginning inventories. Data concerning those two jobs follow:

	Job B	Job K
Direct materials	\$ 13,700	\$ 7,800
Direct labor cost	\$ 23,500	\$ 1,250
Machining machine-hours	4,000	2,000
Finishing machine-hours	500	3,500

Required:

- Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate that overhead rate. Note: Round your answer to 2 decimal places. TBEXAM.COM
- Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate the amount of manufacturing overhead applied to Job B. Note: Do not round intermediate calculations.
- Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate the amount of manufacturing overhead applied to Job K. Note: Do not round intermediate calculations. Round your answer to the nearest whole dollar amount.
- Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both departments. What is the departmental predetermined overhead rate in the Machining department? Note: Round your answer to 2 decimal places.
- Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. What is the departmental predetermined overhead rate in the Finishing department? Note: Round your answer to 2 decimal places.
- Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. How much manufacturing overhead will be applied to Job B? Note: Do not round intermediate calculations.

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- g. Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. How much manufacturing overhead will be applied to Job K? Note: Do not round intermediate calculations.

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- 333) Bierce Corporation has two manufacturing departments--Machining and Finishing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Machining	Finishing	Total
Estimated total machine-hours (MHs)	4,000	1,000	5,000
Estimated total fixed manufacturing overhead cost	\$20,000	\$2,100	\$22,100
Estimated variable manufacturing overhead cost per MH	\$ 1.40	\$ 2.80	

During the most recent month, the company started and completed two jobs--Job B and Job K. There were no beginning inventories. Data concerning those two jobs follow:

	Job B	Job K
Direct materials	\$ 12,800	\$ 7,900
Direct labor cost	\$ 24,700	\$ 6,400
Machining machine-hours	2,700	1,300
Finishing machine-hours	400	600

Required:

- Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate that overhead rate. Note: Round your answer to 2 decimal places. TBEXAM.COM
- Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate the amount of manufacturing overhead applied to Job B. Note: Do not round intermediate calculations.
- Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate the amount of manufacturing overhead applied to Job K. Note: Do not round intermediate calculations. Round your answer to the nearest whole dollar amount.
- Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both departments. What is the departmental predetermined overhead rate in the Machining department? Note: Round your answer to 2 decimal places.
- Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. What is the departmental predetermined overhead rate in the Finishing department? Note: Round your answer to 2 decimal places.
- Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. How much manufacturing overhead will be applied to Job B? Note: Do not round intermediate calculations.

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- g. Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. How much manufacturing overhead will be applied to Job K? Note: Do not round intermediate calculations.

334) Gercak Corporation has two production departments, Forming and Assembly. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Assembly Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Assembly
Machine-hours	16,000	11,000
Direct labor-hours	2,000	7,000
Total fixed manufacturing overhead cost	\$100,800	\$76,300
Variable manufacturing overhead per machine-hour	\$ 1.70	
Variable manufacturing overhead per direct labor-hour		\$ 3.10

During the current month the company started and finished Job X560. The following data were recorded for this job:

Job X560	Forming	Assembly
Machine-hours	50	30
Direct labor-hours	30	40

Required:

- Calculate the estimated total manufacturing overhead for the Assembly Department.
- Calculate the predetermined overhead rate for the Forming Department.
- Calculate the total amount of overhead applied to Job X560 in both departments.

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- 335) Sonneborn Corporation has two manufacturing departments--Molding and Customizing. The company used the following data at the beginning of the year to calculate predetermined overhead rates:

	Molding	Customizing	Total
Estimated total machine-hours (MHs)	1,000	9,000	10,000
Estimated total fixed manufacturing overhead cost	\$5,100	\$23,400	\$28,500
Estimated variable manufacturing overhead cost per MH	\$ 1.50	\$ 2.50	

During the most recent month, the company started and completed two jobs--Job D and Job G. There were no beginning inventories. Data concerning those two jobs follow:

	Job D	Job G
Direct materials	\$ 14,700	\$ 9,100
Direct labor cost	\$ 18,800	\$ 8,300
Molding machine-hours	700	300
Customizing machine-hours	3,600	5,400

Required:

- Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate the amount of manufacturing overhead applied to Job D. TBEXAM.COM
- Assume that the company uses a plantwide predetermined manufacturing overhead rate based on machine-hours. Calculate the amount of manufacturing overhead applied to Job G.
- Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. How much manufacturing overhead will be applied to Job D?
- Assume that the company uses departmental predetermined overhead rates with machine-hours as the allocation base in both production departments. How much manufacturing overhead will be applied to Job G?

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- 336) Rocher Corporation has two production departments, Casting and Finishing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Casting Department's predetermined overhead rate is based on machine-hours and the Finishing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Casting	Finishing
Machine-hours	17,000	13,000
Direct labor-hours	4,000	6,000
Total fixed manufacturing overhead cost	\$124,100	\$52,200
Variable manufacturing overhead per machine-hour	\$ 2.30	
Variable manufacturing overhead per direct labor-hour		\$ 4.00

During the current month the company started and finished Job A394. The following data were recorded for this job:

Job A394	Casting	Finishing
Machine-hours	80	20
Direct labor-hours	10	40

Required:

- Calculate the estimated total manufacturing overhead for the Casting Department.
- Calculate the predetermined overhead rate for the Casting Department.
- Calculate the amount of overhead applied in the Casting Department to Job A394.

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- 337) Marius Corporation has two production departments, Casting and Finishing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Casting Department's predetermined overhead rate is based on machine-hours and the Finishing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Casting	Finishing
Machine-hours	18,000	12,000
Direct labor-hours	4,000	6,000
Total fixed manufacturing overhead cost	\$118,800	\$57,600
Variable manufacturing overhead per machine-hour	\$ 2.20	
Variable manufacturing overhead per direct labor-hour		\$ 4.00

During the current month the company started and finished Job K895. The following data were recorded for this job:

Job K895:	Casting	Finishing
Machine-hours	70	30
Direct labor-hours	20	60

Required:

- Calculate the estimated total manufacturing overhead for the Finishing Department.
- Calculate the predetermined overhead rate for the Finishing Department.
- Calculate the amount of overhead applied in the Finishing Department to Job K895.

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- 338) Madole Corporation has two production departments, Forming and Customizing. The company uses a job-order costing system and computes a predetermined overhead rate in each production department. The Forming Department's predetermined overhead rate is based on machine-hours and the Customizing Department's predetermined overhead rate is based on direct labor-hours. At the beginning of the current year, the company had made the following estimates:

	Forming	Customizing
Machine-hours	19,000	12,000
Direct labor-hours	4,000	8,000
Total fixed manufacturing overhead cost	\$119,700	\$67,200
Variable manufacturing overhead per machine-hour	\$ 2.00	
Variable manufacturing overhead per direct labor-hour		\$ 4.20

During the current month the company started and finished Job K973. The following data were recorded for this job:

Job K973:	Forming	Customizing
Machine-hours	50	20
Direct labor-hours	20	50

Required:

- Calculate the estimated total manufacturing overhead for the Forming Department.
- Calculate the predetermined overhead rate for the Customizing Department.
- Calculate the total overhead applied to Job K973 in both departments.

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- 339) Sullen Corporation uses a predetermined overhead rate base on machine-hours that it recalculates at the beginning of each year. The company has provided the following data for the most recent year.

Predetermined overhead rate	\$ 14.30 per machine-hour
Estimated total fixed manufacturing overhead from the beginning of the year	\$572,000
Estimated activity level from the beginning of the year	40,000 machine-hours
Actual total fixed manufacturing overhead	\$605,000
Actual activity level	36,700 machine-hours

Required: Determine the amount of manufacturing overhead that would have been applied to all jobs during the period.

- 340) Levi Corporation uses a predetermined overhead rate of \$23.40 per direct labor-hour. This predetermined overhead rate was based on estimated total fixed manufacturing overhead of \$702,000 and 30,000 direct labor-hours for the period. The company incurred actual total fixed manufacturing overhead of \$738,000 and 27,100 total direct labor-hours during the period.

Required: Determine the amount of manufacturing overhead that would have been applied to all jobs during the period.

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341) Job 243 was recently completed. The following data have been recorded on its job cost sheet:

Direct materials	\$ 48,870
Direct labor-hours	405 labor-hours
Direct labor wage rate	\$ 13 per labor-hour
Machine-hours	486 machine-hours
Number of units completed	2,700 units

The company applies manufacturing overhead on the basis of machine-hours. The predetermined overhead rate is \$11 per machine-hour.

Required: Compute the unit product cost that would appear on the job cost sheet for this job.

342) Job 652 was recently completed. The following data have been recorded on its job cost sheet:

Direct materials	\$ 59,400
Direct labor-hours	1,224 DLHs
Direct labor wage rate	\$ 15 per DLH
Number of units completed	3,600 units

The company applies manufacturing overhead on the basis of direct labor-hours. The predetermined overhead rate is \$35 per direct labor-hour.

Required: Compute the unit product cost that would appear on the job cost sheet for this job.

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343) Pac Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In May the company completed job I07W that consisted of 48,000 units of one of the company's standard products. No other jobs were in process, completed, or sold during the month. The job cost sheet for job I07W shows that the total cost for the job was \$3,201,600. During the month, 21,000 completed units from job I07W were sold.

Required: Determine the cost of goods sold that would appear on the income statement for May.

344) Pac Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In May the company completed job I07W that consisted of 20,000 units of one of the company's standard products. No other jobs were in process, completed, or sold during the month. The job cost sheet for job I07W shows that the total cost for the job was \$1,054,000. During the month, 7,000 completed units from job I07W were sold.

Required: Determine the cost of goods sold that would appear on the income statement for May.

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345) Pac Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In May the company completed job I07W that consisted of 20,000 units of one of the company's standard products. No other jobs were in process, completed, or sold during the month. The job cost sheet for job I07W shows that the total cost for the job was \$1,054,000. During the month, 7,000 completed units from job I07W were sold.

Required: Determine the finished goods inventory at the end of May.

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- 346) Broberg Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In August the company completed job A39E that consisted of 14,000 units of one of the company's standard products. No other jobs were in process, completed, or sold during the month. The job cost sheet for job A39E shows the following costs:

Beginning balance	\$ 29,400
Direct materials	\$ 498,400
Direct labor cost	\$ 103,600
Manufacturing overhead cost applied	\$ 186,200

During the month, 3,000 completed units from job A39E were sold.

Required: Determine the cost of goods sold that would appear on the income statement for August.

- 347) Broberg Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In August the company completed job A39E that consisted of 25,000 units of one of the company's standard products. No other jobs were in process, completed, or sold during the month. The job cost sheet for job A39E shows the following costs:

Beginning balance	\$ 616,800
Direct materials	\$ 608,400
Direct labor cost	\$ 213,600
Manufacturing overhead cost applied	\$ 296,200

During the month, 14,000 completed units from job A39E were sold.

Required: Determine the finished goods inventory at the end of August.

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- 348) Broberg Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In August the company completed job A39E that consisted of 14,000 units of one of the company's standard products. No other jobs were in process, completed, or sold during the month. The job cost sheet for job A39E shows the following costs:

Beginning balance	\$ 29,400
Direct materials	\$ 498,400
Direct labor cost	\$ 103,600
Manufacturing overhead cost applied	\$ 186,200

During the month, 3,000 completed units from job A39E were sold.

Required: Determine the finished goods inventory at the end of August.

- 349) Westgaard Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In March, the company completed job G87M that consisted of 21,200 units of one of the company's standard products. No other jobs were in process, completed, or sold during the month. The job cost sheet for job G87M shows that the job's total cost was \$1,180,300. During the month, 4,200 completed units from job G87M were sold.

Required: Determine the cost of goods sold for March.

- 350) Westgaard Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In March, the company completed job G87M that consisted of 22,000 units of one of the company's standard products. No other jobs were in process, completed, or sold during the month. The job cost sheet for job G87M shows that the job's total cost was \$1,179,200. During the month, 4,000 completed units from job G87M were sold.

Required: Determine the cost of goods sold for March.

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351) Westgaard Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In March, the company completed job G87M that consisted of 21,700 units of one of the company's standard products. No other jobs were in process, completed, or sold during the month. The job cost sheet for job G87M shows that the job's total cost was \$1,181,500. During the month, 4,300 completed units from job G87M were sold.

Required: Determine the finished goods inventory at the end of March.

352) Westgaard Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In March, the company completed job G87M that consisted of 22,000 units of one of the company's standard products. No other jobs were in process, completed, or sold during the month. The job cost sheet for job G87M shows that the job's total cost was \$1,179,200. During the month, 4,000 completed units from job G87M were sold.

Required: Determine the finished goods inventory at the end of March.

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353) Bartholemew Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In February the company completed job G43C that consisted of 20,700 units of one of the company's standard products. No other jobs were in process, completed, or sold during the month. The job cost sheet for job G43C shows that the job's total cost was \$1,262,700. During the month, 15,700 completed units from job G43C were sold.

Required: Determine the cost of goods sold for February.

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354) Bartholemew Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In February the company completed job G43C that consisted of 19,000 units of one of the company's standard products. No other jobs were in process, completed, or sold during the month. The job cost sheet for job G43C shows that the job's total cost was \$1,126,700. During the month, 14,000 completed units from job G43C were sold.

Required: Determine the cost of goods sold for February.

355) Bartholemew Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In February the company completed job G43C that consisted of 19,500 units of one of the company's standard products. No other jobs were in process, completed, or sold during the month. The job cost sheet for job G43C shows that the job's total cost was \$1,136,500. During the month, 14,000 completed units from job G43C were sold.

Required: Determine the finished goods inventory at the end of February.

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356) Bartholemew Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In February the company completed job G43C that consisted of 19,000 units of one of the company's standard products. No other jobs were in process, completed, or sold during the month. The job cost sheet for job G43C shows that the job's total cost was \$1,126,700. During the month, 14,000 completed units from job G43C were sold.

Required: Determine the finished goods inventory at the end of February.

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- 357) Beland Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In December the company completed job K79D that consisted of 23,500 units of one of the company's standard products. No other jobs were in process, completed, or sold during the month. The job cost sheet for job K79D shows the following costs:

Beginning balance	\$ 58,300
Direct materials	\$ 490,400
Direct labor cost	\$ 152,800
Manufacturing overhead cost applied	\$ 451,000

During the month, 5,500 completed units from job K79D were sold.

Required: Determine the cost of goods sold for December.

- 358) Beland Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In December the company completed job K79D that consisted of 23,000 units of one of the company's standard products. No other jobs were in process, completed, or sold during the month. The job cost sheet for job K79D shows the following costs: TBEXAM.COM

Beginning balance	\$ 55,200
Direct materials	\$ 489,900
Direct labor cost	\$ 151,800
Manufacturing overhead cost applied	\$ 448,500

During the month, 5,000 completed units from job K79D were sold.

Required: Determine the cost of goods sold for December.

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- 359) Beland Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In December the company completed job K79D that consisted of 23,100 units of one of the company's standard products. No other jobs were in process, completed, or sold during the month. The job cost sheet for job K79D shows the following costs:

Beginning balance	\$ 58,100
Direct materials	\$ 490,600
Direct labor cost	\$ 153,200
Manufacturing overhead cost applied	\$ 451,000

During the month, 5,400 completed units from job K79D were sold.

Required: Determine the finished goods inventory at the end of December.

- 360) Beland Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In December the company completed job K79D that consisted of 23,000 units of one of the company's standard products. No other jobs were in process, completed, or sold during the month. The job cost sheet for job K79D shows the following costs: TBEXAM.COM

Beginning balance	\$ 55,200
Direct materials	\$ 489,900
Direct labor cost	\$ 151,800
Manufacturing overhead cost applied	\$ 448,500

During the month, 5,000 completed units from job K79D were sold.

Required: Determine the finished goods inventory at the end of December.

Managerial Accounting Edition 18 by Garrison

361) Henkes Corporation bases its predetermined overhead rate on the estimated labor-hours for the upcoming year. At the beginning of the most recently completed year, the company estimated the labor-hours for the upcoming year at 66,000 labor-hours. The estimated variable manufacturing overhead was \$8.41 per labor-hour and the estimated total fixed manufacturing overhead was \$1,533,180. The actual labor-hours for the year turned out to be 68,400 labor-hours.

Required: Compute the company's predetermined overhead rate for the recently completed year.

362) Mccaughan Corporation bases its predetermined overhead rate on the estimated labor-hours for the upcoming year. Data for the most recently completed year appear below:

Estimates made at the beginning of the year:

Estimated labor-hours	37,000
Estimated variable manufacturing overhead	\$ 4.43 per labor-hour
Estimated total fixed manufacturing overhead	\$ 705,220
Actual labor-hours for the year	32,100

Required: Compute the company's predetermined overhead rate for the recently completed year.

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363) Moscone Corporation bases its predetermined overhead rate on the estimated labor-hours for the upcoming year. At the beginning of the most recently completed year, the company estimated the labor-hours for the upcoming year at 78,000 labor-hours. The estimated variable manufacturing overhead was \$9.99 per labor-hour and the estimated total fixed manufacturing overhead was \$985,920.

Required: Compute the company's predetermined overhead rate.

364) Lightner Corporation bases its predetermined overhead rate on the estimated machine-hours for the upcoming year. Data for the upcoming year appear below:

Estimated machine-hours	50,000
Estimated variable manufacturing overhead	\$ 8.82 per machine-hour
Estimated total fixed manufacturing overhead	\$ 1,077,000

Required: Compute the company's predetermined overhead rate.

TBEXAM.COM

365) Job 243 was recently completed. The following data have been recorded on its job cost sheet:

Direct materials	\$ 48,870
Direct labor-hours	405 labor-hours
Direct labor wage rate	\$ 13 per labor-hour
Machine-hours	486 machine-hours
Number of units completed	2,700 units

The company applies manufacturing overhead on the basis of machine-hours. The predetermined overhead rate is \$11 per machine-hour.

Required: Compute the unit product cost that would appear on the job cost sheet for this job.

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366) Job 652 was recently completed. The following data have been recorded on its job cost sheet:

Direct materials	\$ 59,400
Direct labor-hours	1,224 DLHs
Direct labor wage rate	\$ 15 per DLH
Number of units completed	3,600 units

The company applies manufacturing overhead on the basis of direct labor-hours. The predetermined overhead rate is \$35 per direct labor-hour.

Required: Compute the unit product cost that would appear on the job cost sheet for this job.

367) Pac Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In May the company completed job I07W that consisted of 20,000 units of one of the company's standard products. No other jobs were in process, completed, or sold during the month. The job cost sheet for job I07W shows that the total cost for the job was \$1,054,000. During the month, 7,000 completed units from job I07W were sold.

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Required: Determine the cost of goods sold that would appear on the income statement for May.

368) Pac Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In May the company completed job I07W that consisted of 20,000 units of one of the company's standard products. No other jobs were in process, completed, or sold during the month. The job cost sheet for job I07W shows that the total cost for the job was \$1,054,000. During the month, 7,000 completed units from job I07W were sold.

Required: Determine the finished goods inventory at the end of May.

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- 369) Broberg Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In August the company completed job A39E that consisted of 14,000 units of one of the company's standard products. No other jobs were in process, completed, or sold during the month. The job cost sheet for job A39E shows the following costs:

Beginning balance	\$ 29,400
Direct materials	\$ 498,400
Direct labor cost	\$ 103,600
Manufacturing overhead cost applied	\$ 186,200

During the month, 3,000 completed units from job A39E were sold.

Required: Determine the cost of goods sold that would appear on the income statement for August.

- 370) Broberg Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In August the company completed job A39E that consisted of 14,000 units of one of the company's standard products. No other jobs were in process, completed, or sold during the month. The job cost sheet for job A39E shows the following costs:

Beginning balance	\$ 29,400
Direct materials	\$ 498,400
Direct labor cost	\$ 103,600
Manufacturing overhead cost applied	\$ 186,200

During the month, 3,000 completed units from job A39E were sold.

Required: Determine the finished goods inventory at the end of August.

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371) Westgaard Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In March, the company completed job G87M that consisted of 22,000 units of one of the company's standard products. No other jobs were in process, completed, or sold during the month. The job cost sheet for job G87M shows that the job's total cost was \$1,179,200. During the month, 4,000 completed units from job G87M were sold.

Required: Determine the cost of goods sold for March.

372) Westgaard Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In March, the company completed job G87M that consisted of 22,000 units of one of the company's standard products. No other jobs were in process, completed, or sold during the month. The job cost sheet for job G87M shows that the job's total cost was \$1,179,200. During the month, 4,000 completed units from job G87M were sold.

Required: Determine the finished goods inventory at the end of March.

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373) Bartholemew Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In February the company completed job G43C that consisted of 19,000 units of one of the company's standard products. No other jobs were in process, completed, or sold during the month. The job cost sheet for job G43C shows that the job's total cost was \$1,126,700. During the month, 14,000 completed units from job G43C were sold.

Required: Determine the cost of goods sold for February.

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374) Bartholemew Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In February the company completed job G43C that consisted of 19,000 units of one of the company's standard products. No other jobs were in process, completed, or sold during the month. The job cost sheet for job G43C shows that the job's total cost was \$1,126,700. During the month, 14,000 completed units from job G43C were sold.

Required: Determine the finished goods inventory at the end of February.

375) Beland Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In December the company completed job K79D that consisted of 23,000 units of one of the company's standard products. No other jobs were in process, completed, or sold during the month. The job cost sheet for job K79D shows the following costs:

Beginning balance	\$ 55,200
Direct materials	\$ 489,900
Direct labor cost	\$ 151,800
Manufacturing overhead cost applied	\$ 448,500

During the month, 5,000 completed units from job K79D were sold.

Required: Determine the cost of goods sold for December.

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376) Beland Incorporated uses a job-order costing system and its total manufacturing overhead applied always equals its total manufacturing overhead. In December the company completed job K79D that consisted of 23,000 units of one of the company's standard products. No other jobs were in process, completed, or sold during the month. The job cost sheet for job K79D shows the following costs:

Beginning balance	\$ 55,200
Direct materials	\$ 489,900
Direct labor cost	\$ 151,800
Manufacturing overhead cost applied	\$ 448,500

During the month, 5,000 completed units from job K79D were sold.

Required: Determine the finished goods inventory at the end of December.

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Answer Key

Test name: Chapter 02

- 1) C
- 2) D
- 3) B
- 4) D
- 5) D
- 6) B
- 7) C
- 8) A
- 9) C
- 10) B
- 11) B
- 12) C
- 13) B
- 14) D
- 15) A

Rent on factory building	TBEXAM.COM	\$ 15,000
Depreciation on factory equipment		8,000
Indirect labor		12,000
Production supervisor's salary		15,000
Manufacturing overhead		<u>\$ 50,000</u>

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base

Predetermined overhead rate = \$50,000 ÷ 20,000 direct labor-hours = \$2.50 per direct labor-hour

- 16) C

Department A Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base

Predetermined overhead rate = \$90,000 ÷ \$60,000 = 150% of direct labor cost

Department B Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base

Predetermined overhead rate = \$45,000 ÷ 15,000 machine-hours = \$3.00 per machine-hour

- 17) B

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Estimated total fixed manufacturing overhead (a)	\$ 121,000
Estimated activity level (b)	10,000
Predetermined overhead rate (a) ÷ (b)	<u>\$ 12.10</u>

18) D

Salary of production supervisor	\$ 2,000
Indirect materials	400
Rent on factory equipment	1,000
Total manufacturing overhead	<u>\$ 3,400</u>

Predetermined overhead rate = Estimated total manufacturing overhead ÷ Estimated total amount of the allocation base = \$3,400 ÷ 1,000 machine-hours = \$3.40 per machine-hour

19) A

Estimated total fixed manufacturing overhead (a)	\$ 534,000
Estimated activity level (b)	30,000
Predetermined overhead rate (a) ÷ (b)	<u>\$ 17.80</u>

20) B

TBEXAM.COM

Estimated total manufacturing overhead = \$838,800 + (\$3.10 per machine-hour × 72,700 machine-hours) = \$1,064,170

Predetermined overhead rate = Estimated total manufacturing overhead ÷ Estimated total amount of the allocation base = \$1,064,170 ÷ 72,700 machine-hours = \$14.64 per machine-hour

21) B

Estimated total manufacturing overhead = \$1,058,040 + (\$3.01 per machine-hour × 36,000 machine-hours) = \$1,166,400

Predetermined overhead rate = Estimated total manufacturing overhead ÷ Estimated total amount of the allocation base = \$1,166,400 ÷ 36,000 machine-hours = \$32.40 per machine-hour

22) A

Estimated total manufacturing overhead = \$789,048 + (\$4.47 per machine-hour × 28,100 machine-hours) = \$914,655

Predetermined overhead rate = Estimated total manufacturing overhead ÷ Estimated total amount of the allocation base = \$914,655 ÷ 28,100 machine-hours = \$32.55 per machine-hour

23) A

Managerial Accounting Edition 18 by Garrison

Estimated total manufacturing overhead = \$2,347,090 + (\$7.38 per machine-hour × 79,000 machine-hours) = \$2,930,110

Predetermined overhead rate = Estimated total manufacturing overhead ÷ Estimated total amount of the allocation base = \$2,930,110 ÷ 79,000 machine-hours = \$37.09 per machine-hour

24) C

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$144,000 + (\$2.00 per machine-hour × 60,000 machine-hours) = \$144,000 + \$120,000 = \$264,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$264,000 ÷ 60,000 machine-hours = \$4.40 per machine-hour

25) A

Estimated total manufacturing overhead = \$724,827 + (\$5.09 per labor-hour × 30,700 labor-hours) = \$881,090

Predetermined overhead rate = Estimated total manufacturing overhead ÷ Estimated total amount of the allocation base = \$881,090 ÷ 30,700 labor-hours = \$28.70 per labor-hour

26) A

Estimated total manufacturing overhead = \$1,026,260 + (\$6.25 per labor-hour × 46,000 labor-hours) = \$1,313,760

Predetermined overhead rate = Estimated total manufacturing overhead ÷ Estimated total amount of the allocation base = \$1,313,760 ÷ 46,000 labor-hours = \$28.56 per labor-hour

27) D

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$440,000 + (\$2.20 per machine-hour × 50,000 machine-hours) = \$440,000 + \$110,000 = \$550,000

28) B

Estimated total manufacturing overhead = \$1,228,770 + (\$5.21 per machine-hour × 41,000 machine-hours) = \$1,442,380

Predetermined overhead rate = Estimated total manufacturing overhead ÷ Estimated total amount of the allocation base = \$1,442,380 ÷ 41,000 machine-hours = \$35.18 per machine-hour

29) B

Managerial Accounting Edition 18 by Garrison

Estimated total manufacturing overhead = \$794,430 + (\$6.76 per machine-hour × 39,000 machine-hours) = \$1,058,070

Predetermined overhead rate = Estimated total manufacturing overhead ÷ Estimated total amount of the allocation base = \$1,058,070 ÷ 39,000 machine-hours = \$27.13 per machine-hour

30) A

Salary of production supervisor	\$ 40,000
Indirect materials	8,000
Rent on factory equipment	20,000
Manufacturing overhead	<u>\$ 68,000</u>

Predetermined overhead rate = Estimated total manufacturing overhead ÷ Estimated total amount of the allocation base

Predetermined overhead rate = \$68,000 ÷ 16,000 machine-hours = \$4.25 per machine-hour

31) D

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$189,000 + (\$2.50 per direct labor-hour × 30,000 direct labor-hours) = \$189,000 + \$75,000 = \$264,000

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Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$264,000 ÷ 30,000 direct labor-hours = \$8.80 per direct labor-hour

32) B

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$357,000 + (\$3.90 per machine-hour × 70,000 machine-hours) = \$357,000 + \$273,000 = \$630,000

33) A

Managerial Accounting Edition 18 by Garrison

The first step is to calculate the estimated total overhead costs in the two departments.

Forming

Estimated fixed manufacturing overhead	\$ 40,600
Estimated variable manufacturing overhead (\$1.30 per MH × 7,000 MHs)	9,100
Estimated total manufacturing overhead cost	<u>\$ 49,700</u>

Finishing

Estimated fixed manufacturing overhead	\$ 8,100
Estimated variable manufacturing overhead (\$2.80 per MH × 3,000 MHs)	8,400
Estimated total manufacturing overhead cost	<u>\$ 16,500</u>

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$49,700 + \$16,500 = \$66,200) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$ 66,200
Estimated total machine hours	10,000 MHs
Predetermined overhead rate	\$ 6.62 per MH

34) A

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Estimated total fixed manufacturing overhead (a)	\$ 492,000
Estimated activity level (b)	30,000
Predetermined overhead rate (a) ÷ (b)	<u>\$ 16.40</u>
Actual activity level	28,300
Manufacturing overhead applied	<u>\$ 464,120</u>

35) A

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$344,000 + (\$3.90 per machine-hour × 40,000 machine-hours) = \$344,000 + \$156,000 = \$500,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$500,000 ÷ 40,000 machine-hours = \$12.50 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$12.50 per machine-hour × 60 machine-hours = \$750

36) A

Managerial Accounting Edition 18 by Garrison

The first step is to calculate the estimated total overhead costs in the two departments.

Forming

Estimated fixed manufacturing overhead	\$ 52,200
Estimated variable manufacturing overhead (\$2.00 per MH × 9,000 MHs)	18,000
Estimated total manufacturing overhead cost	<u>\$ 70,200</u>

Assembly

Estimated fixed manufacturing overhead	\$ 2,400
Estimated variable manufacturing overhead (\$2.10 per MH × 1,000 MHs)	2,100
Estimated total manufacturing overhead cost	<u>\$ 4,500</u>

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$70,200 + \$4,500 = \$74,700) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$ 74,700
Estimated total machine hours	10,000 MHs
Predetermined overhead rate	\$ 7.47 per MH

The overhead applied to Job B is calculated as follows:

Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job

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= \$7.47 per MH × (6,100 MHs + 400 MHs)

= \$7.47 per MH × (6,500 MHs)

= \$48,555

37) B

Managerial Accounting Edition 18 by Garrison

The first step is to calculate the estimated total overhead costs in the two departments.

Casting

Estimated fixed manufacturing overhead	\$ 44,000
Estimated variable manufacturing overhead (\$1.90 per MH × 8,000 MHs)	15,200
Estimated total manufacturing overhead cost	<u>\$ 59,200</u>

Assembly

Estimated fixed manufacturing overhead	\$ 4,200
Estimated variable manufacturing overhead (\$3.00 per MH × 2,000 MHs)	6,000
Estimated total manufacturing overhead cost	<u>\$ 10,200</u>

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$59,200 + \$10,200 = \$69,400) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$ 69,400
Estimated total machine hours	10,000 MHs
Predetermined overhead rate	\$ 6.94 per MH

The overhead applied to Job H is calculated as follows:

Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job

TBEXAM.COM

= \$6.94 per MH × (2,600 MHs + 1,200 MHs)

= \$6.94 per MH × (3,800 MHs)

= \$26,372

38) D

Overhead applied = Predetermined overhead rate × Amount of the allocation base incurred \$600

= Predetermined overhead rate × \$150

Predetermined overhead rate = \$600 ÷ \$150 = 4.0

Direct materials	\$ 480
Direct labor (\$150 + \$100)	250
Manufacturing overhead applied (4.0 × \$250)	1,000
Total product cost	<u>\$ 1,730</u>

39) B

Managerial Accounting Edition 18 by Garrison

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$105,000 + (\$3.00 per machine-hour × 70,000 machine-hours) =

\$105,000 + \$210,000 = \$315,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$315,000 ÷ 70,000 machine-hours = \$4.50 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$4.50 per machine-hour × 60 machine-hours = \$270

40) A

Estimated total fixed manufacturing overhead (a)	\$ 684,000
Estimated activity level (b)	40,000
Predetermined overhead rate (a) ÷ (b)	<u>\$ 17.10</u>
Actual activity level	37,700
Manufacturing overhead applied	<u>\$ 644,670</u>

41) A

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The first step is to calculate the estimated total overhead costs in the two departments.

Molding

Estimated fixed manufacturing overhead	\$ 4,000
Estimated variable manufacturing overhead (\$2.00 per MH × 1,000 MHs)	2,000
Estimated total manufacturing overhead cost	<u>\$ 6,000</u>

Customizing

Estimated fixed manufacturing overhead	\$ 25,200
Estimated variable manufacturing overhead (\$3.00 per MH × 9,000 MHs)	27,000
Estimated total manufacturing overhead cost	<u>\$ 52,200</u>

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$6,000 + \$52,200 = \$58,200) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$ 58,200
Estimated total machine hours	10,000 MHs
Predetermined overhead rate	\$ 5.82 per MH

The overhead applied to Job K is calculated as follows:

Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job

TBEXAM.COM

= \$5.82 per MH × (300 MHs + 5,400 MHs)

= \$5.82 per MH × (5,700 MHs)

= \$33,174

Job K's manufacturing cost:

Direct materials	\$ 8,400
Direct labor cost	6,800
Manufacturing overhead applied	33,174
Total manufacturing cost	<u>\$ 48,374</u>

The selling price for Job K:

Total manufacturing cost	\$ 48,374
Markup (50%)	24,187
Selling price	<u>\$ 72,561</u>

42) C

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Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$665,000 + (\$3.00 per machine-hour × 70,000 machine-hours) =

\$665,000 + \$210,000 = \$875,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$875,000 ÷ 70,000 machine-hours = \$12.50 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$12.50 per machine-hour × 90 machine-hours = \$1,125

Direct materials	\$ 630
Direct labor	2,880
Manufacturing overhead applied	1,125
Total cost of Job T321	<u>\$ 4,635</u>
Total cost of Job T321 (a)	<u><u>\$ 4,635</u></u>
Number of units (b)	30
Unit product cost (a) ÷ (b)	\$ 154.50

43) A

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The first step is to calculate the estimated total overhead costs in the two departments.

Machining

Estimated fixed manufacturing overhead	\$ 22,000
Estimated variable manufacturing overhead (\$1.80 per MH × 5,000 MHs)	9,000
Estimated total manufacturing overhead cost	<u>\$ 31,000</u>

Customizing

Estimated fixed manufacturing overhead	\$ 11,500
Estimated variable manufacturing overhead (\$3.00 per MH × 5,000 MHs)	15,000
Estimated total manufacturing overhead cost	<u>\$ 26,500</u>

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$31,000 + \$26,500 = \$57,500) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$ 57,500
Estimated total machine hours	10,000 MHs
Predetermined overhead rate	\$ 5.75 per MH

The overhead applied to Job E is calculated as follows:

Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job
 $= \$5.75 \text{ per MH} \times (3,400 \text{ MHs} + 2,000 \text{ MHs})$
 $= \$5.75 \text{ per MH} \times (5,400 \text{ MHs})$
 $= \$31,050$

Job E's manufacturing cost:

Direct materials	\$ 12,800
Direct labor cost	17,600
Manufacturing overhead applied	31,050
Total manufacturing cost	<u>\$ 61,450</u>

The overhead applied to Job J is calculated as follows:

Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job
 $= \$5.75 \text{ per MH} \times (1,600 \text{ MHs} + 3,000 \text{ MHs})$
 $= \$5.75 \text{ per MH} \times (4,600 \text{ MHs})$
 $= \$26,450$

Job J's manufacturing cost:

Direct materials	\$ 7,000
Direct labor cost	7,700
Manufacturing overhead applied	<u>26,450</u>

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Total manufacturing cost	\$ 41,150
Total manufacturing cost assigned to Job E	<u>\$ 61,450</u>
Total manufacturing cost assigned to Job J	<u>41,150</u>
Cost of goods sold	<u><u>\$ 102,600</u></u>

44) C

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$511,000 + (\$2.10 per direct labor-hour × 70,000 direct labor-hours) = \$511,000 + \$147,000 = \$658,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$658,000 ÷ 70,000 direct labor-hours = \$9.40 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$9.40 per direct labor-hour × 150 direct labor-hours = \$1,410

Direct materials	\$ 705
Direct labor cost	4,650
Manufacturing overhead applied	<u>1,410</u>
Total cost of Job K913	<u><u>\$ 6,765</u></u>

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45) C

Managerial Accounting Edition 18 by Garrison

The first step is to calculate the estimated total overhead costs in the two departments.

Casting

Estimated fixed manufacturing overhead	\$ 9,800
Estimated variable manufacturing overhead (\$2.00 per MH × 2,000 MHs)	4,000
Estimated total manufacturing overhead cost	<u>\$ 13,800</u>

Finishing

Estimated fixed manufacturing overhead	\$ 6,300
Estimated variable manufacturing overhead (\$2.40 per MH × 3,000 MHs)	7,200
Estimated total manufacturing overhead cost	<u>\$ 13,500</u>

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$13,800 + \$13,500 = \$27,300) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$ 27,300
Estimated total machine hours	5,000 MHs
Predetermined overhead rate	\$ 5.46 per MH

The overhead applied to Job L is calculated as follows:

Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job
 $= \$5.46 \text{ per MH} \times (600 \text{ MHs} + 1,800 \text{ MHs})$
 $= \$5.46 \text{ per MH} \times (2,400 \text{ MHs})$
 $= \$13,104$

Job L's manufacturing cost:

Direct materials	\$ 9,600
Direct labor cost	6,200
Manufacturing overhead applied	13,104
Total manufacturing cost	<u>\$ 28,904</u>

46) B

Managerial Accounting Edition 18 by Garrison

The first step is to calculate the estimated total overhead costs in the two departments.

Forming

Estimated fixed manufacturing overhead	\$ 27,000
Estimated variable manufacturing overhead (\$1.10 per MH × 5,000 MHs)	5,500
Estimated total manufacturing overhead cost	<u>\$ 32,500</u>

Assembly

Estimated fixed manufacturing overhead	\$ 10,500
Estimated variable manufacturing overhead (\$2.80 per MH × 5,000 MHs)	14,000
Estimated total manufacturing overhead cost	<u>\$ 24,500</u>

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$32,500 + \$24,500 = \$57,000) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$ 57,000
Estimated total machine hours	10,000 MHs
Predetermined overhead rate	\$ 5.70 per MH

The overhead applied to Job C is calculated as follows:

Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job

TBEXAM.COM

= \$5.70 per MH × (3,400 MHs + 2,000 MHs)

= \$5.70 per MH × (5,400 MHs)

= \$30,780

Job C's manufacturing cost:

Direct materials	\$ 11,200
Direct labor cost	21,000
Manufacturing overhead applied	30,780
Total manufacturing cost	<u>\$ 62,980</u>

The selling price for Job C:

Total manufacturing cost	\$ 62,980
Markup (40%)	25,192
Selling price	<u>\$ 88,172</u>

47) D

Managerial Accounting Edition 18 by Garrison

The first step is to calculate the estimated total overhead costs in the two departments.

Machining

Estimated fixed manufacturing overhead	\$ 30,000
Estimated variable manufacturing overhead (\$2.00 per MH × 6,000 MHs)	12,000
Estimated total manufacturing overhead cost	<u>\$ 42,000</u>

Finishing

Estimated fixed manufacturing overhead	\$ 11,200
Estimated variable manufacturing overhead (\$2.40 per MH × 4,000 MHs)	9,600
Estimated total manufacturing overhead cost	<u>\$ 20,800</u>

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$42,000 + \$20,800 = \$62,800) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$ 62,800
Estimated total machine hours	10,000 MHs
Predetermined overhead rate	\$ 6.28 per MH

The overhead applied to Job E is calculated as follows:

Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job

$$= \$6.28 \text{ per MH} \times (4,100 \text{ MHs} + 1,600 \text{ MHs})$$

$$= \$6.28 \text{ per MH} \times (5,700 \text{ MHs})$$

$$= \$35,796$$

Job E's manufacturing cost:

Direct materials	\$ 13,400
Direct labor cost	24,500
Manufacturing overhead applied	35,796
Total manufacturing cost	<u>\$ 73,696</u>

48) B

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Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$249,000 + (\$3.80 per machine-hour × 30,000 machine-hours) = \$249,000 + \$114,000 = \$363,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$363,000 ÷ 30,000 machine-hours = \$12.10 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$12.10 per machine-hour × 250 machine-hours = \$3,025

Direct materials	\$ 470
Direct labor	5,500
Manufacturing overhead applied	3,025
Total cost of Job X784	<u>\$ 8,995</u>
Total cost of Job X784 (a)	<u>\$ 8,995</u>
Number of units (b)	50
Unit product cost (a) ÷ (b)	\$ 179.90
Unit product cost for Job X784	\$ 179.90
Markup (30% × \$179.90)	53.97
Selling price	<u><u>\$ 233.87</u></u>

49) B

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Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$35,000 + (\$2.20 per machine-hour × 10,000 machine-hours) = \$35,000 + \$22,000 = \$57,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$57,000 ÷ 10,000 machine-hours = \$5.70 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$5.70 per machine-hour × 40 machine-hours = \$228

Direct materials	\$ 750
Direct labor	1,560
Manufacturing overhead applied	228
Total cost of Job T369	<u>\$ 2,538</u>
Total cost of Job T369 (a)	<u>\$ 2,538</u>
Number of units (b)	10
Unit product cost (a) ÷ (b)	\$ 253.80
Unit product cost for Job T369	\$ 253.80
Markup (20% × \$253.80)	50.76
Selling price	<u><u>\$ 304.56</u></u>

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50) B

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$378,000 + (\$2.20 per direct labor-hour × 60,000 direct labor-hours) = \$378,000 + \$132,000 = \$510,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$510,000 ÷ 60,000 direct labor-hours = \$8.50 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$8.50 per direct labor-hour × 120 direct labor-hours = \$1,020

Direct materials	\$ 630
Direct labor	2,400
Manufacturing overhead applied	1,020
Total cost of Job M843	\$ 4,050
Total cost of Job M843 (a)	\$ 4,050
Number of units (b)	60
Unit product cost (a) ÷ (b)	\$ 67.50

51) A

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$155,000 + (\$3.40 per machine-hour × 50,000 machine-hours) = \$155,000 + \$170,000 = \$325,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$325,000 ÷ 50,000 machine-hours = \$6.50 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$6.50 per machine-hour × 100 machine-hours = \$650

Direct materials	\$ 645
Direct labor	2,300
Manufacturing overhead applied	650
Total cost of Job A881	\$ 3,595

52) A

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Forming Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)

= \$99,000 + (\$2.10 per machine-hour × 18,000 machine-hours)

= \$99,000 + \$37,800 = \$136,800

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$136,800 ÷ 18,000 machine-hours = \$7.60 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$7.60 per machine-hour × 90 machine-hours = \$684

Finishing Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

= \$70,400 + (\$3.70 per direct labor-hour × 8,000 direct labor-hours)

= \$70,400 + \$29,600 = \$100,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$100,000 ÷ 8,000 direct labor-hours = \$12.50 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$12.50 per direct labor-hour × 60 direct labor-hours = \$750

	Forming	Finishing	Total
Direct materials	\$ 940	\$ 350	\$ 1,290
Direct labor	\$ 960	\$ 1,920	2,880
Manufacturing overhead applied	\$ 684	\$ 750	1,434
Total cost of Job T617			<u>\$ 5,604</u>

53) A

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Machining Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$ 9,400
Estimated variable manufacturing overhead (\$1.80 per MH × 2,000 MHs)	3,600
Estimated total manufacturing overhead cost (a)	<u>\$ 13,000</u>
Estimated total machine-hours (b)	2,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 6.50 per MH

Assembly Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$ 8,100
Estimated variable manufacturing overhead (\$2.40 per MH × 3,000 MHs)	7,200
Estimated total manufacturing overhead cost (a)	<u>\$ 15,300</u>
Estimated total machine-hours (b)	3,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 5.10 per MH

Manufacturing overhead applied to Job L:

Machining (\$6.50 per MH × 600 MHs)	\$ 3,900
Assembly (\$5.10 per MH × 1,800 MHs)	9,180
Total manufacturing overhead applied	<u><u>\$ 13,080</u></u>

The selling price for Job L would be calculated as follows:

Direct materials	\$ 7,100
Direct labor cost	6,700
Manufacturing overhead applied	13,080
Total manufacturing cost	<u>\$ 26,880</u>
Markup (50%)	<u>13,440</u>
Selling price	<u><u>\$ 40,320</u></u>

54) A

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Forming Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)

= \$110,500 + (\$1.60 per machine-hour × 17,000 machine-hours)

= \$110,500 + \$27,200 = \$137,700

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$137,700 ÷ 17,000 machine-hours = \$8.10 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$8.10 per machine-hour × 70 machine-hours = \$567

Finishing Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

= \$78,300 + (\$3.30 per direct labor-hour × 9,000 direct labor-hours)

= \$78,300 + \$29,700 = \$108,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$108,000 ÷ 9,000 direct labor-hours = \$12.00 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$12.00 per direct labor-hour × 50 direct labor-hours = \$600

	Forming	Finishing	Total
Direct materials	\$ 650	\$ 330	\$ 980
Direct labor	\$ 380	\$ 1,900	2,280
Manufacturing overhead applied	\$ 567	\$ 600	1,167
Total cost of Job A948			<u>\$ 4,427</u>
Total cost of Job A948	\$ 4,427.00		
Markup (\$4,427.00 × 40%)	1,770.80		
Selling price	<u>\$ 6,197.80</u>		

55) B

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Casting Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$ 10,200
Estimated variable manufacturing overhead (\$1.20 per MH × 2,000 MHs)	2,400
Estimated total manufacturing overhead cost (a)	<u>\$ 12,600</u>
Estimated total machine-hours (b)	2,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 6.30 per MH

Finishing Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$ 19,200
Estimated variable manufacturing overhead (\$2.20 per MH × 8,000 MHs)	17,600
Estimated total manufacturing overhead cost (a)	<u>\$ 36,800</u>
Estimated total machine-hours (b)	8,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 4.60 per MH

Manufacturing overhead applied to Job F:

Casting (\$6.30 per MH × 1,400 MHs)	\$ 8,820
Finishing (\$4.60 per MH × 3,200 MHs)	14,720
Total manufacturing overhead applied	<u><u>\$ 23,540</u></u>

The selling price for Job F would be calculated as follows:

Direct materials	\$ 14,400
Direct labor cost	22,500
Manufacturing overhead applied	23,540
Total manufacturing cost	<u>\$ 60,440</u>
Markup (50%)	30,220
Selling price	<u><u>\$ 90,660</u></u>

56) D

Managerial Accounting Edition 18 by Garrison

Machining Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$ 4,700
Estimated variable manufacturing overhead (\$1.10 per MH × 1,000 MHs)	1,100
Estimated total manufacturing overhead cost (a)	<u>\$ 5,800</u>
Estimated total machine-hours (b)	1,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 5.80 per MH
Customizing Department predetermined overhead rate:	
Estimated fixed manufacturing overhead	\$ 9,200
Estimated variable manufacturing overhead (\$2.60 per MH × 4,000 MHs)	10,400
Estimated total manufacturing overhead cost (a)	<u>\$ 19,600</u>
Estimated total machine-hours (b)	4,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 4.90 per MH

Manufacturing overhead applied to Job K:

Machining (\$5.80 per MH × 300 MHs)	\$ 1,740
Customizing (\$4.90 per MH × 2,400 MHs)	11,760
Total manufacturing overhead applied	<u><u>\$ 13,500</u></u>

57) D

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Milling Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)

$$= \$120,600 + (\$2.00 \text{ per machine-hour} \times 18,000 \text{ machine-hours})$$

$$= \$120,600 + \$36,000 = \$156,600$$

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = $\$156,600 \div 18,000 \text{ machine-hours} = \$8.70 \text{ per machine-hour}$

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = $\$8.70 \text{ per machine-hour} \times 50 \text{ machine-hours} = \435

Assembly Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

$$= \$76,300 + (\$4.30 \text{ per direct labor-hour} \times 7,000 \text{ direct labor-hours})$$

$$= \$76,300 + \$30,100 = \$106,400$$

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = $\$106,400 \div 7,000 \text{ direct labor-hours} = \$15.20 \text{ per direct labor-hour}$

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = $\$15.20 \text{ per direct labor-hour} \times 40 \text{ direct labor-hours} = \608

Overhead applied to Job T818

Milling Department	\$ 435
Assembly Department	608
Total	\$ 1,043

58) C

Machining Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)

$$= \$102,600 + (\$2.10 \text{ per machine-hour} \times 18,000 \text{ machine-hours})$$

$$= \$102,600 + \$37,800 = \$140,400$$

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = $\$140,400 \div 18,000 \text{ machine-hours} = \$7.80 \text{ per machine-hour}$

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = $\$7.80 \text{ per machine-hour} \times 80 \text{ machine-hours} = \624

59) C

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Customizing Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

= \$58,480 + (\$4.50 per direct labor-hour × 6,800 direct labor-hours)

= \$58,480 + \$30,600 = \$89,080

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$89,080 ÷ 6,800 direct labor-hours = \$13.10 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$13.10 per direct labor-hour × 80 direct labor-hours = \$1,048

60) C

Customizing Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

= \$68,600 + (\$3.80 per direct labor-hour × 7,000 direct labor-hours)

= \$68,600 + \$26,600 = \$95,200

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$95,200 ÷ 7,000 direct labor-hours = \$13.60 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$13.60 per direct labor-hour × 60 direct labor-hours = \$816

61) C

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Forming Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$ 37,100
Estimated variable manufacturing overhead (\$1.70 per MH × 7,000 MHs)	11,900
Estimated total manufacturing overhead cost (a)	<u>\$ 49,000</u>
Estimated total machine-hours (b)	7,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 7.00 per MH
Assembly Department predetermined overhead rate:	
Estimated fixed manufacturing overhead	\$ 9,000
Estimated variable manufacturing overhead (\$2.60 per MH × 3,000 MHs)	7,800
Estimated total manufacturing overhead cost (a)	<u>\$ 16,800</u>
Estimated total machine-hours (b)	3,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 5.60 per MH
Manufacturing overhead applied to Job B:	
Forming (\$7.00 per MH × 4,800 MHs)	\$ 33,600
Assembly (\$5.60 per MH × 1,200 MHs)	6,720
Total manufacturing overhead applied	<u><u>\$ 40,320</u></u>

62) C

Milling Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)

= \$118,400 + (\$2.10 per machine-hour × 16,000 machine-hours)

= \$118,400 + \$33,600 = \$152,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$152,000 ÷ 16,000 machine-hours = \$9.50 per machine-hour

63) D

Assembly Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

= \$57,400 + (\$3.40 per direct labor-hour × 7,000 direct labor-hours)

= \$57,400 + \$23,800 = \$81,200

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$81,200 ÷ 7,000 direct labor-hours = \$11.60 per direct labor-hour

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64) B

Customizing Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

= \$86,400 + (\$3.00 per direct labor-hour × 8,000 direct labor-hours)

= \$86,400 + \$24,000 = \$110,400

65) D

Casting Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$ 5,700
Estimated variable manufacturing overhead (\$1.30 per MH × 1,000 MHs)	1,300
Estimated total manufacturing overhead cost (a)	\$ 7,000
Estimated total machine-hours (b)	1,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 7.00 per MH

66) A

Machining Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)

= \$110,200 + (\$2.00 per machine-hour × 19,000 machine-hours)

= \$110,200 + \$38,000 = \$148,200

67) C

Assembly Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$ 4,600
Estimated variable manufacturing overhead (\$2.50 per MH × 2,000 MHs)	5,000
Estimated total manufacturing overhead cost (a)	\$ 9,600
Estimated total machine-hours (b)	2,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 4.80 per MH

68) B

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Beginning balance	\$ 41,000
Direct materials	251,000
Direct labor	98,000
Manufacturing overhead cost applied	192,000
Total manufacturing cost for the job	<u>\$ 582,000</u>
Total number of units produced	<u>10,000</u>
Unit product cost	\$ 58.20
Units sold (a)	\$ 3,000
Unit product cost (b)	\$ 58.20
Cost of goods sold (a) × (b)	\$ 174,600

69) A

Beginning balance	\$ 53,000
Direct materials	263,000
Direct labor cost	218,000
Manufacturing overhead cost applied	204,000
Total manufacturing cost for the job	<u>\$ 738,000</u>
Total number of units produced	<u>10,000</u>
Unit product cost	\$ 73.80
Units in ending finished goods inventory (a)	5,800
Unit product cost (b)	\$ 73.80
Cost of goods sold (a) × (b)	\$ 428,040

70) A

Beginning balance	\$ 41,000
Direct materials	251,000
Direct labor cost	98,000
Manufacturing overhead cost applied	192,000
Total manufacturing cost for the job	<u>\$ 582,000</u>
Total number of units produced	<u>10,000</u>
Unit product cost	\$ 58.20
Units in ending finished goods inventory (a)	7,000
Unit product cost (b)	\$ 58.20
Cost of goods sold (a) × (b)	\$ 407,400

71) D

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Total manufacturing cost for the job	\$ 732,000
Total number of units produced	15,000
Unit product cost	\$ 48.80

Cost of goods sold	\$ 292,800
(6,000 units × \$48.80 per unit)	

72) C

Total manufacturing cost for the job	\$ 732,000
Total number of units produced	15,000
Unit product cost	\$ 48.80

Finished goods inventory	\$ 439,200
(9,000 units × \$48.80 per unit)	

73) C

Total manufacturing cost for the job (a)	\$ 928,800
Total number of units produced (b)	24,000
Unit product cost (a) ÷ (b)	\$ 38.70
Units sold (a)	21,000
Unit product cost (b)	\$ 38.70
Cost of goods sold (a) × (b)	\$ 812,700

74) D

Total manufacturing cost for the job (a)	\$ 2,286,200
Total number of units produced (b)	46,000
Unit product cost (a) ÷ (b)	\$ 49.70
Units in finished goods inventory (a)	14,000
Unit product cost (b)	\$ 49.70
Finished goods inventory (a) × (b)	\$ 695,800

75) D

Managerial Accounting Edition 18 by Garrison

Total manufacturing cost for the job (a)	\$ 928,800
Total number of units produced (b)	24,000
Unit product cost (a) ÷ (b)	\$ 38.70
Units in finished goods inventory (a)	3,000
Unit product cost (b)	\$ 38.70
Finished goods inventory (a) × (b)	\$ 116,100

76) D

Beginning balance	\$ 44,100
Direct materials	564,900
Direct labor cost	195,300
Manufacturing overhead cost applied	315,000
Total manufacturing cost for the job	<u>\$ 1,119,300</u>
Total number of units produced	<u>21,000</u>
Unit product cost	\$ 53.30

Cost of goods sold	\$ 746,200
(14,000 units × \$53.30 per unit)	

77) B

Beginning balance	\$ 44,100
Direct materials	564,900
Direct labor cost	195,300
Manufacturing overhead cost applied	315,000
Total manufacturing cost for the job	<u>\$ 1,119,300</u>
Total number of units produced	<u>21,000</u>
Unit product cost	\$ 53.30

Finished goods inventory	\$ 373,100
(7,000 units × \$53.30 per unit)	

78) C

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Total manufacturing cost for the job (a)	\$ 850,200
Total number of units produced (b)	13,000
Unit product cost (a) ÷ (b)	\$ 65.40
Cost of goods sold (4,000 units × \$65.40 per unit)	\$ 261,600

79) A

Total manufacturing cost for the job (a)	\$ 850,200
Total number of units produced (b)	13,000
Unit product cost (a) ÷ (b)	\$ 65.40
Finished goods inventory (9,000 units × \$65.40 per unit)	\$ 588,600

80) B

Manufacturing overhead applied to Work in Process:

	Fabrication	Assembly	Total
Predetermined overhead rate (a)	\$ 30 per MH	\$ 12 per DLH	
Actual total amount of the allocation base (b)	40 MHs	25 DLHs	
Manufacturing overhead applied (a) × (b)	\$ 1,200	\$ 300	\$ 1,500

81) A

Manufacturing overhead applied = Predetermined overhead rate × Amount of the allocation base incurred

$$\$20,560 = 0.80 \times \text{Direct labor cost}$$

$$\text{Direct labor cost} = \$20,560 \div 0.80 = \$25,700$$

82) A

Manufacturing overhead applied = Predetermined overhead rate × Amount of the allocation base incurred

$$\$10,000 = 0.80 \times \text{Direct labor cost}$$

$$\text{Direct labor cost} = \$10,000 \div 0.80 = \$12,500$$

83) D

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Predetermined overhead rate (a)	\$ 22.30
Actual activity level (b)	18,200
Manufacturing overhead applied (a) × (b)	<u>\$ 405,860</u>

84) A

Predetermined overhead rate	\$ 23.60
Actual activity level	28,100
Manufacturing overhead applied	<u>\$ 663,160</u>

85) A

Direct materials	\$ 2,414
Direct labor (74 direct labor-hours × \$17 per direct labor-hour)	1,258
Overhead (137 machine-hours × \$18 per machine-hour)	2,466
Total manufacturing cost for Job 910	<u><u>\$ 6,138</u></u>

86) C

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Direct materials	\$ 3,193
Direct labor (21 direct labor-hours × \$12.00 per direct labor-hour)	252
Overhead (166 machine-hours × \$15.00 per machine-hour)	2,490
Total manufacturing cost for Job 910	<u><u>\$ 5,935</u></u>

87) C

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Department A manufacturing overhead = Predetermined overhead rate × Amount of the allocation base incurred

$$\$80,000 = 200\% \times \text{Direct labor}$$

$$\text{Direct labor} = \$40,000$$

Department B manufacturing overhead = Predetermined overhead rate × Amount of the allocation base incurred

$$= 50\% \times \$60,000 = \$30,000$$

	Department A	Department B	Total
Direct materials	\$ 50,000	\$ 10,000	
Direct labor	40,000	60,000	
Manufacturing overhead	80,000	30,000	
Total product cost	<u>\$ 170,000</u>	<u>\$ 100,000</u>	<u>\$ 270,000</u>

88) D

Direct materials	\$ 2,118
Direct labor (40 direct labor-hours × \$18 per direct labor-hour)	720
Overhead (257 machine-hours × \$22 per machine-hour)	5,654
Total manufacturing cost for Job 450	<u>\$ 8,492</u>

89) D

Direct materials	\$ 3,044
Direct labor (46 direct labor-hours × \$15.00 per direct labor-hour)	690
Overhead (104 machine-hours × \$13.00 per machine-hour)	1,352
Total manufacturing cost for Job 450	<u>\$ 5,086</u>

90) C

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$416,000 + (\$3.10 per machine-hour × 80,000 machine-hours) = \$416,000 + \$248,000 = \$664,000

91) A

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Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$416,000 + (\$3.10 per machine-hour × 80,000 machine-hours) = \$416,000 + \$248,000 = \$664,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$664,000 ÷ 80,000 machine-hours = \$8.30 per machine-hour

92) A

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$36,000 + (\$2.80 per direct labor-hour × 10,000 direct labor-hours) = \$36,000 + \$28,000 = \$64,000

93) B

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$36,000 + (\$2.80 per direct labor-hour × 10,000 direct labor-hours) = \$36,000 + \$28,000 = \$64,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$64,000 ÷ 10,000 direct labor-hours = \$6.40 per direct labor-hour

94) D

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The first step is to calculate the estimated total overhead costs in the two departments.

Machining

Estimated fixed manufacturing overhead	\$ 39,200
Estimated variable manufacturing overhead (\$1.90 per MH × 7,000 MHs)	13,300
Estimated total manufacturing overhead cost	<u>\$ 52,500</u>

Assembly

Estimated fixed manufacturing overhead	\$ 6,600
Estimated variable manufacturing overhead (\$2.10 per MH × 3,000 MHs)	6,300
Estimated total manufacturing overhead cost	<u>\$ 12,900</u>

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$52,500 + \$12,900 = \$65,400) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$ 65,400
Estimated total machine hours	10,000 MHs
Predetermined overhead rate	\$ 6.54 per MH

95) C

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Managerial Accounting Edition 18 by Garrison

The first step is to calculate the estimated total overhead costs in the two departments.

Machining

Estimated fixed manufacturing overhead	\$ 39,200
Estimated variable manufacturing overhead (\$1.90 per MH × 7,000 MHs)	13,300
Estimated total manufacturing overhead cost	<u>\$ 52,500</u>

Assembly

Estimated fixed manufacturing overhead	\$ 6,600
Estimated variable manufacturing overhead (\$2.10 per MH × 3,000 MHs)	6,300
Estimated total manufacturing overhead cost	<u>\$ 12,900</u>

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$52,500 + \$12,900 = \$65,400) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$ 65,400
Estimated total machine hours	10,000 MHs
Predetermined overhead rate	\$ 6.54 per MH

The overhead applied to Job B is calculated as follows:

Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job

TBEXAM.COM

= \$6.54 per MH × (4,800 MHs + 1,200 MHs)

= \$6.54 per MH × (6,000 MHs)

= \$39,240

96) B

Managerial Accounting Edition 18 by Garrison

The first step is to calculate the estimated total overhead costs in the two departments.

Machining

Estimated fixed manufacturing overhead	\$ 39,200
Estimated variable manufacturing overhead (\$1.90 per MH × 7,000 MHs)	13,300
Estimated total manufacturing overhead cost	<u>\$ 52,500</u>

Assembly

Estimated fixed manufacturing overhead	\$ 6,600
Estimated variable manufacturing overhead (\$2.10 per MH × 3,000 MHs)	6,300
Estimated total manufacturing overhead cost	<u>\$ 12,900</u>

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$52,500 + \$12,900 = \$65,400) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$ 65,400
Estimated total machine hours	10,000 MHs
Predetermined overhead rate	\$ 6.54 per MH

The overhead applied to Job G is calculated as follows:

Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job

TBEXAM.COM

= \$6.54 per MH × (2,200 MHs + 1,800 MHs)
 = \$6.54 per MH × (4,000 MHs)
 = \$26,160

97) D

Estimated total fixed manufacturing overhead (a)	\$ 310,000
Estimated activity level (b)	20,000
Predetermined overhead rate (a) ÷ (b)	<u>\$ 15.50</u>

98) D

Estimated total fixed manufacturing overhead (a)	\$ 310,000
Estimated activity level (b)	20,000
Predetermined overhead rate (a) ÷ (b)	<u>\$ 15.50</u>
Actual activity level	18,300
Manufacturing overhead applied	<u>\$ 283,650</u>

99) B

Managerial Accounting Edition 18 by Garrison

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$90,000 + (\$3.70 per direct labor-hour × 50,000 direct labor-hours) = \$90,000 + \$185,000 = \$275,000

100) B

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$90,000 + (\$3.70 per direct labor-hour × 50,000 direct labor-hours) = \$90,000 + \$185,000 = \$275,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$275,000 ÷ 50,000 direct labor-hours = \$5.50 per direct labor-hour

101) C

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$90,000 + (\$3.70 per direct labor-hour × 50,000 direct labor-hours) = \$90,000 + \$185,000 = \$275,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$275,000 ÷ 50,000 direct labor-hours = \$5.50 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$5.50 per direct labor-hour × 150 direct labor-hours = \$825

102) D

Estimated total fixed manufacturing overhead (a)	\$ 738,000
Estimated activity level (b)	30,000
Predetermined overhead rate (a) ÷ (b)	<u>\$ 24.60</u>

103) C

Estimated total fixed manufacturing overhead (a)	\$ 738,000
Estimated activity level (b)	30,000
Predetermined overhead rate (a) ÷ (b)	<u>\$ 24.60</u>
Actual activity level	31,500
Manufacturing overhead applied	<u>\$ 774,900</u>

104) D

Managerial Accounting Edition 18 by Garrison

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$312,000 + (\$2.10 per machine-hour × 80,000 machine-hours) = \$312,000 + \$168,000 = \$480,000

105) D

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$312,000 + (\$2.10 per machine-hour × 80,000 machine-hours) = \$312,000 + \$168,000 = \$480,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$480,000 ÷ 80,000 machine-hours = \$6.00 per machine-hour

106) C

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$312,000 + (\$2.10 per machine-hour × 80,000 machine-hours) = \$312,000 + \$168,000 = \$480,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$480,000 ÷ 80,000 machine-hours = \$6.00 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$6.00 per machine-hour × 200 machine-hours = \$1,200

107) D

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$96,000 + (\$3.00 per direct labor-hour × 40,000 direct labor-hours) = \$96,000 + \$120,000 = \$216,000

108) D

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$96,000 + (\$3.00 per direct labor-hour × 40,000 direct labor-hours) = \$96,000 + \$120,000 = \$216,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$216,000 ÷ 40,000 direct labor-hours = \$5.40 per direct labor-hour

109) C

Managerial Accounting Edition 18 by Garrison

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$96,000 + (\$3.00 per direct labor-hour × 40,000 direct labor-hours) = \$96,000 + \$120,000 = \$216,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$216,000 ÷ 40,000 direct labor-hours = \$5.40 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$5.40 per direct labor-hour × 100 direct labor-hours = \$540

110) D

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$460,200 + (\$5.00 per direct labor-hour × 78,000 direct labor-hours) = \$460,200 + \$390,000 = \$850,200

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$850,200 ÷ 78,000 direct labor-hours = \$10.90 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$10.90 per direct labor-hour × 100 direct labor-hours = \$1,090

Direct materials	\$ 710
Direct labor	7,800
Manufacturing overhead applied	1,090
Total cost of Job P951	<u><u>\$ 9,600</u></u>

111) D

Managerial Accounting Edition 18 by Garrison

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$96,000 + (\$3.00 per direct labor-hour × 40,000 direct labor-hours) = \$96,000 + \$120,000 = \$216,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$216,000 ÷ 40,000 direct labor-hours = \$5.40 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$5.40 per direct labor-hour × 100 direct labor-hours = \$540

Direct materials	\$ 755
Direct labor	4,000
Manufacturing overhead applied	540
Total cost of Job P951	<u><u>\$ 5,295</u></u>

112) B

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$399,000 + (\$2.00 per direct labor-hour × 105,000 direct labor-hours) = \$399,000 + \$210,000 = \$609,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$609,000 ÷ 105,000 direct labor-hours = \$5.80 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$5.80 per direct labor-hour × 100 direct labor-hours = \$580

Direct materials	\$ 730
Direct labor	10,500
Manufacturing overhead applied	580
Total cost of Job P951	<u><u>\$ 11,810</u></u>
Total cost of Job P951 (a)	\$ 11,810
Number of units (b)	50
Unit product cost (a) ÷ (b)	\$ 236.20

113) B

Managerial Accounting Edition 18 by Garrison

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$96,000 + (\$3.00 per direct labor-hour × 40,000 direct labor-hours) = \$96,000 + \$120,000 = \$216,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$216,000 ÷ 40,000 direct labor-hours = \$5.40 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$5.40 per direct labor-hour × 100 direct labor-hours = \$540

Direct materials	\$ 755
Direct labor	4,000
Manufacturing overhead applied	540
Total cost of Job P951	\$ 5,295
Total cost of Job P951 (a)	\$ 5,295
Number of units (b)	20
Unit product cost (a) ÷ (b)	\$ 264.75

114) C

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$160,000 + (\$3.40 per direct labor-hour × 80,000 direct labor-hours) = \$160,000 + \$272,000 = \$432,000

115) D

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$160,000 + (\$3.40 per direct labor-hour × 80,000 direct labor-hours) = \$160,000 + \$272,000 = \$432,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$432,000 ÷ 80,000 direct labor-hours = \$5.40 per direct labor-hour

116) B

Managerial Accounting Edition 18 by Garrison

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$160,000 + (\$3.40 per direct labor-hour × 80,000 direct labor-hours) = \$160,000 + \$272,000 = \$432,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$432,000 ÷ 80,000 direct labor-hours = \$5.40 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$5.40 per direct labor-hour × 250 direct labor-hours = \$1,350

117) A

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$160,000 + (\$3.40 per direct labor-hour × 80,000 direct labor-hours) = \$160,000 + \$272,000 = \$432,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$432,000 ÷ 80,000 direct labor-hours = \$5.40 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$5.40 per direct labor-hour × 250 direct labor-hours = \$1,350

Direct materials	\$ 715
Direct labor	9,000
Manufacturing overhead applied	1,350
Total cost of Job A578	<u><u>\$ 11,065</u></u>

118) A

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$176,000 + (\$2.20 per machine-hour × 20,000 machine-hours) = \$176,000 + \$44,000 = \$220,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$220,000 ÷ 20,000 machine-hours = \$11.00 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$11.00 per machine-hour × 200 machine-hours = \$2,200

119) B

Managerial Accounting Edition 18 by Garrison

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$176,000 + (\$2.20 per machine-hour × 20,000 machine-hours) =

\$176,000 + \$44,000 = \$220,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$220,000 ÷ 20,000 machine-hours = \$11.00 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$11.00 per machine-hour × 200 machine-hours = \$2,200

Direct materials	\$ 540
Direct labor	7,200
Manufacturing overhead applied	2,200
Total cost of Job P505	<u>\$ 9,940</u>

120) C

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Managerial Accounting Edition 18 by Garrison

The first step is to calculate the estimated total overhead costs in the two departments.

Molding

Estimated fixed manufacturing overhead	\$ 25,000
Estimated variable manufacturing overhead (\$1.50 per MH × 3,250 MHs)	4,875
Estimated total manufacturing overhead cost	<u>\$ 29,875</u>

Finishing

Estimated fixed manufacturing overhead	\$ 4,800
Estimated variable manufacturing overhead (\$3.00 per MH × 1,750 MHs)	5,250
Estimated total manufacturing overhead cost	<u>\$ 10,050</u>

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$29,875 + \$10,050 = \$39,925) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$ 39,925
Estimated total machine hours	5,000 MHs
Predetermined overhead rate	\$ 7.99 per MH

The overhead applied to Job M is calculated as follows:

Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job

TBEXAM.COM

= \$7.99 per MH × (2,000 MHs + 500 MHs)

= \$7.99 per MH × (2,500 MHs)

= \$19,975

Job M's manufacturing cost:

Direct materials	\$ 9,800
Direct labor cost	10,200
Manufacturing overhead applied	19,975
Total manufacturing cost	<u>\$ 39,975</u>

121) C

Managerial Accounting Edition 18 by Garrison

The first step is to calculate the estimated total overhead costs in the two departments.

Molding

Estimated fixed manufacturing overhead	\$ 19,600
Estimated variable manufacturing overhead (\$1.10 per MH × 4,000 MHs)	4,400
Estimated total manufacturing overhead cost	<u>\$ 24,000</u>

Finishing

Estimated fixed manufacturing overhead	\$ 2,400
Estimated variable manufacturing overhead (\$2.10 per MH × 1,000 MHs)	2,100
Estimated total manufacturing overhead cost	<u>\$ 4,500</u>

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$24,000 + \$4,500 = \$28,500) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$ 28,500
Estimated total machine hours	5,000 MHs
Predetermined overhead rate	\$ 5.70 per MH

The overhead applied to Job M is calculated as follows:

Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job
 $= \$5.70 \text{ per MH} \times (1,300 \text{ MHs} + 600 \text{ MHs})$
 $= \$5.70 \text{ per MH} \times (1,900 \text{ MHs})$
 $= \$10,830$

Job M's manufacturing cost:

Direct materials	\$ 7,500
Direct labor cost	7,400
Manufacturing overhead applied	10,830
Total manufacturing cost	<u>\$ 25,730</u>

122) B

Managerial Accounting Edition 18 by Garrison

The first step is to calculate the estimated total overhead costs in the two departments.

Molding

Estimated fixed manufacturing overhead	\$ 18,000
Estimated variable manufacturing overhead (\$1.00 per MH × 6,500 MHs)	6,500
Estimated total manufacturing overhead cost	<u>\$ 24,500</u>

Finishing

Estimated fixed manufacturing overhead	\$ 5,500
Estimated variable manufacturing overhead (\$2.00 per MH × 3,500 MHs)	7,000
Estimated total manufacturing overhead cost	<u>\$ 12,500</u>

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$24,500 + \$12,500 = \$37,000) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$ 37,000
Estimated total machine hours	10,000 MHs
Predetermined overhead rate	\$ 3.70 per MH

The overhead applied to Job A is calculated as follows:

Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job

TBEXAM.COM

= \$3.70 per MH × (2,500 MHs + 2,500 MHs)

= \$3.70 per MH × (5,000 MHs)

= \$18,500

Job A's manufacturing cost:

Direct materials	\$ 16,800
Direct labor cost	23,700
Manufacturing overhead applied	18,500
Total manufacturing cost	<u>\$ 59,000</u>

The selling price for Job A:

Total manufacturing cost	\$ 59,000
Markup (30%)	17,700
Selling price	<u>\$ 76,700</u>

123) B

Managerial Accounting Edition 18 by Garrison

The first step is to calculate the estimated total overhead costs in the two departments.

Molding

Estimated fixed manufacturing overhead	\$ 19,600
Estimated variable manufacturing overhead (\$1.10 per MH × 4,000 MHs)	4,400
Estimated total manufacturing overhead cost	<u>\$ 24,000</u>

Finishing

Estimated fixed manufacturing overhead	\$ 2,400
Estimated variable manufacturing overhead (\$2.10 per MH × 1,000 MHs)	2,100
Estimated total manufacturing overhead cost	<u>\$ 4,500</u>

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$24,000 + \$4,500 = \$28,500) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$ 28,500
Estimated total machine hours	5,000 MHs
Predetermined overhead rate	\$ 5.70 per MH

The overhead applied to Job A is calculated as follows:

Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job
 $= \$5.70 \text{ per MH} \times (2,700 \text{ MHs} + 400 \text{ MHs})$
 $= \$5.70 \text{ per MH} \times (3,100 \text{ MHs})$
 $= \$17,670$

Job A's manufacturing cost:

Direct materials	\$ 13,600
Direct labor cost	20,700
Manufacturing overhead applied	17,670
Total manufacturing cost	<u>\$ 51,970</u>

The selling price for Job A:

Total manufacturing cost	\$ 51,970
Markup (40%)	20,788
Selling price	<u>\$ 72,758</u>

124) A

Managerial Accounting Edition 18 by Garrison

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$497,000 + (\$2.40 per direct labor-hour × 70,000 direct labor-hours) = \$497,000 + \$168,000 = \$665,000

125) C

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$497,000 + (\$2.40 per direct labor-hour × 70,000 direct labor-hours) = \$497,000 + \$168,000 = \$665,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$665,000 ÷ 70,000 direct labor-hours = \$9.50 per direct labor-hour

126) C

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$497,000 + (\$2.40 per direct labor-hour × 70,000 direct labor-hours) = \$497,000 + \$168,000 = \$665,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$665,000 ÷ 70,000 direct labor-hours = \$9.50 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$9.50 per direct labor-hour × 80 direct labor-hours = \$760

127) A

Managerial Accounting Edition 18 by Garrison

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$497,000 + (\$2.40 per direct labor-hour × 70,000 direct labor-hours) = \$497,000 + \$168,000 = \$665,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$665,000 ÷ 70,000 direct labor-hours = \$9.50 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$9.50 per direct labor-hour × 80 direct labor-hours = \$760

Direct materials	\$ 950
Direct labor	2,720
Manufacturing overhead applied	760
Total cost of Job T498	<u><u>\$ 4,430</u></u>

128) D

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$497,000 + (\$2.40 per direct labor-hour × 70,000 direct labor-hours) = \$497,000 + \$168,000 = \$665,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$665,000 ÷ 70,000 direct labor-hours = \$9.50 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$9.50 per direct labor-hour × 80 direct labor-hours = \$760

Direct materials	\$ 950
Direct labor	2,720
Manufacturing overhead applied	760
Total cost of Job T498	<u><u>\$ 4,430</u></u>
Total cost of Job T498 (a)	\$ 4,430
Number of units (b)	40
Unit product cost (a) ÷ (b)	\$ 110.75

129) C

Managerial Accounting Edition 18 by Garrison

The first step is to calculate the estimated total overhead costs in the two departments.

Machining

Estimated fixed manufacturing overhead	\$ 4,700
Estimated variable manufacturing overhead (\$1.20 per MH × 1,000 MHs)	1,200
Estimated total manufacturing overhead cost	<u>\$ 5,900</u>

Assembly

Estimated fixed manufacturing overhead	\$ 10,800
Estimated variable manufacturing overhead (\$2.20 per MH × 4,000 MHs)	8,800
Estimated total manufacturing overhead cost	<u>\$ 19,600</u>

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$5,900 + \$19,600 = \$25,500) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$ 25,500
Estimated total machine hours	5,000 MHs
Predetermined overhead rate	\$ 5.10 per MH

The overhead applied to Job F is calculated as follows:

Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job

TBEXAM.COM

= \$5.10 per MH × (700 MHs + 1,600 MHs)

= \$5.10 per MH × (2,300 MHs)

= \$11,730

Job F's manufacturing cost:

Direct materials	\$ 13,000
Direct labor cost	20,400
Manufacturing overhead applied	11,730
Total manufacturing cost	<u>\$ 45,130</u>

130) B

Managerial Accounting Edition 18 by Garrison

The first step is to calculate the estimated total overhead costs in the two departments.

Machining

Estimated fixed manufacturing overhead	\$ 4,700
Estimated variable manufacturing overhead (\$1.20 per MH × 1,000 MHs)	1,200
Estimated total manufacturing overhead cost	<u>\$ 5,900</u>

Assembly

Estimated fixed manufacturing overhead	\$ 10,800
Estimated variable manufacturing overhead (\$2.20 per MH × 4,000 MHs)	8,800
Estimated total manufacturing overhead cost	<u>\$ 19,600</u>

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$5,900 + \$19,600 = \$25,500) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$ 25,500
Estimated total machine hours	5,000 MHs
Predetermined overhead rate	\$ 5.10 per MH

The overhead applied to Job M is calculated as follows:

Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job

TBEXAM.COM

= \$5.10 per MH × (300 MHs + 2,400 MHs)

= \$5.10 per MH × (2,700 MHs)

= \$13,770

Job M's manufacturing cost:

Direct materials	\$ 7,400
Direct labor cost	8,800
Manufacturing overhead applied	13,770
Total manufacturing cost	<u>\$ 29,970</u>

The selling price for Job M:

Total manufacturing cost	\$ 29,970
Markup (40%)	11,988
Selling price	<u>\$ 41,958</u>

131) A

Managerial Accounting Edition 18 by Garrison

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$33,000 + (\$2.50 per direct labor-hour × 10,000 direct labor-hours) = \$33,000 + \$25,000 = \$58,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$58,000 ÷ 10,000 direct labor-hours = \$5.80 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$5.80 per direct labor-hour × 140 direct labor-hours = \$812

132) C

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$33,000 + (\$2.50 per direct labor-hour × 10,000 direct labor-hours) = \$33,000 + \$25,000 = \$58,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$58,000 ÷ 10,000 direct labor-hours = \$5.80 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$5.80 per direct labor-hour × 140 direct labor-hours = \$812

Direct materials	\$ 455
Direct labor	5,320
Manufacturing overhead applied	812
Total cost of Job K332	<u><u>\$ 6,587</u></u>

133) A

Managerial Accounting Edition 18 by Garrison

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$33,000 + (\$2.50 per direct labor-hour × 10,000 direct labor-hours) = \$33,000 + \$25,000 = \$58,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$58,000 ÷ 10,000 direct labor-hours = \$5.80 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$5.80 per direct labor-hour × 140 direct labor-hours = \$812

Direct materials	\$ 455
Direct labor	5,320
Manufacturing overhead applied	812
Total cost of Job K332	\$ 6,587
Total cost of Job K332 (a)	\$ 6,587
Number of units (b)	70
Unit product cost (a) ÷ (b)	\$ 94.10

134) A

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$162,000 + (\$2.80 per direct labor-hour × 60,000 direct labor-hours) = \$162,000 + \$168,000 = \$330,000

135) A

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$162,000 + (\$2.80 per direct labor-hour × 60,000 direct labor-hours) = \$162,000 + \$168,000 = \$330,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$330,000 ÷ 60,000 direct labor-hours = \$5.50 per direct labor-hour

136) D

Managerial Accounting Edition 18 by Garrison

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$162,000 + (\$2.80 per direct labor-hour × 60,000 direct labor-hours) = \$162,000 + \$168,000 = \$330,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$330,000 ÷ 60,000 direct labor-hours = \$5.50 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$5.50 per direct labor-hour × 50 direct labor-hours = \$275

137) B

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$162,000 + (\$2.80 per direct labor-hour × 60,000 direct labor-hours) = \$162,000 + \$168,000 = \$330,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$330,000 ÷ 60,000 direct labor-hours = \$5.50 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$5.50 per direct labor-hour × 50 direct labor-hours = \$275

Direct materials	\$ 920
Direct labor	1,400
Manufacturing overhead applied	275
Total cost of Job K818	<u><u>\$ 2,595</u></u>

138) B

Managerial Accounting Edition 18 by Garrison

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$162,000 + (\$2.80 per direct labor-hour × 60,000 direct labor-hours) = \$162,000 + \$168,000 = \$330,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$330,000 ÷ 60,000 direct labor-hours = \$5.50 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$5.50 per direct labor-hour × 50 direct labor-hours = \$275

Direct materials	\$ 920
Direct labor	1,400
Manufacturing overhead applied	275
Total cost of Job K818	\$ 2,595
Total cost of Job K818 (a)	\$ 2,595
Number of units (b)	10
Unit product cost (a) ÷ (b)	\$ 259.50

139) A

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$162,000 + (\$2.80 per direct labor-hour × 60,000 direct labor-hours) = \$162,000 + \$168,000 = \$330,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$330,000 ÷ 60,000 direct labor-hours = \$5.50 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$5.50 per direct labor-hour × 50 direct labor-hours = \$275

Direct materials	\$ 920
Direct labor	1,400
Manufacturing overhead applied	275
Total cost of Job K818	\$ 2,595
Total cost of Job K818 (a)	\$ 2,595
Number of units (b)	10
Unit product cost (a) ÷ (b)	\$ 259.50
Unit product cost for Job K818	\$ 259.50
Markup (40% × \$259.50)	103.80
Selling price	\$ 363.30

140) A

Managerial Accounting Edition 18 by Garrison

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$252,000 + (\$2.10 per machine-hour × 30,000 machine-hours) = \$252,000 + \$63,000 = \$315,000

141) B

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$252,000 + (\$2.10 per machine-hour × 30,000 machine-hours) = \$252,000 + \$63,000 = \$315,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$315,000 ÷ 30,000 machine-hours = \$10.50 per machine-hour

142) A

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$337,700 + (\$4 per machine-hour × 30,700 machine-hours) = \$337,700 + \$122,800 = \$460,500

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$460,500 ÷ 30,700 machine-hours = \$15 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$15.00 per machine-hour × 20 machine-hours = \$300

143) A

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$252,000 + (\$2.10 per machine-hour × 30,000 machine-hours) = \$252,000 + \$63,000 = \$315,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$315,000 ÷ 30,000 machine-hours = \$10.50 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$10.50 per machine-hour × 30 machine-hours = \$315

144) D

Managerial Accounting Edition 18 by Garrison

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$575,700 + (\$4 per machine-hour × 30,300 machine-hours) = \$575,700 + \$121,200 = \$696,900

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$696,900 ÷ 30,300 machine-hours = \$23 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$23 per machine-hour × 30 machine-hours = \$690

Direct materials	\$ 730
Direct labor	1,460
Manufacturing overhead applied	690
Total cost of Job T687	<u><u>\$ 2,880</u></u>

145) D

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$252,000 + (\$2.10 per machine-hour × 30,000 machine-hours) = \$252,000 + \$63,000 = \$315,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$315,000 ÷ 30,000 machine-hours = \$10.50 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$10.50 per machine-hour × 30 machine-hours = \$315

Direct materials	\$ 675
Direct labor	1,050
Manufacturing overhead applied	315
Total cost of Job T687	<u><u>\$ 2,040</u></u>

146) D

Managerial Accounting Edition 18 by Garrison

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$164,000 + (\$5 per machine-hour × 32,800 machine-hours) = \$164,000 + \$164,000 = \$328,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$328,000 ÷ 32,800 machine-hours = \$10 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$10 per machine-hour × 30 machine-hours = \$300

Direct materials	\$ 745
Direct labor	1,490
Manufacturing overhead applied	300
Total cost of Job T687	<u>\$ 2,535</u>
Total cost of Job T687 (a)	<u>\$ 2,535</u>
Number of units (b)	10
Unit product cost (a) ÷ (b)	\$ 253.50

147) D

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$252,000 + (\$2.10 per machine-hour × 30,000 machine-hours) = \$252,000 + \$63,000 = \$315,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$315,000 ÷ 30,000 machine-hours = \$10.50 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$10.50 per machine-hour × 30 machine-hours = \$315

Direct materials	\$ 675
Direct labor	1,050
Manufacturing overhead applied	315
Total cost of Job T687	<u>\$ 2,040</u>
Total cost of Job T687 (a)	<u>\$ 2,040</u>
Number of units (b)	10
Unit product cost (a) ÷ (b)	\$ 204.00

148) C

Managerial Accounting Edition 18 by Garrison

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$575,700 + (\$4.00 per machine-hour × 30,300 machine-hours) = \$575,700 + \$121,200 = \$696,900

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$696,900 ÷ 30,300 machine-hours = \$23 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$23 per machine-hour × 30 machine-hours = \$690

Direct materials	\$ 730
Direct labor	1,460
Manufacturing overhead applied	690
Total cost of Job T687	<u>\$ 2,880</u>
Total cost of Job T687 (a)	<u>\$ 2,880</u>
Number of units (b)	10
Unit product cost (a) ÷ (b)	\$ 288.00
Unit product cost for Job T687	\$ 288.00
Markup (40% × \$288.00)	115.20
Selling price	<u>\$ 403.20</u>

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149) C

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Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$252,000 + (\$2.10 per machine-hour × 30,000 machine-hours) = \$252,000 + \$63,000 = \$315,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$315,000 ÷ 30,000 machine-hours = \$10.50 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$10.50 per machine-hour × 30 machine-hours = \$315

Direct materials	\$ 675
Direct labor	1,050
Manufacturing overhead applied	315
Total cost of Job T687	<u>\$ 2,040</u>
Total cost of Job T687 (a)	<u><u>\$ 2,040</u></u>
Number of units (b)	10
Unit product cost (a) ÷ (b)	\$ 204.00
Unit product cost for Job T687	\$ 204.00
Markup (40% × \$204.00)	81.60
Selling price	<u><u>\$ 285.60</u></u>

150) A

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The first step is to calculate the estimated total overhead costs in the two departments.

Casting

Estimated fixed manufacturing overhead	\$ 27,500
Estimated variable manufacturing overhead (\$1.70 per MH × 5,000 MHs)	8,500
Estimated total manufacturing overhead cost	<u>\$ 36,000</u>

Customizing

Estimated fixed manufacturing overhead	\$ 10,500
Estimated variable manufacturing overhead (\$2.60 per MH × 5,000 MHs)	13,000
Estimated total manufacturing overhead cost	<u>\$ 23,500</u>

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$36,000 + \$23,500 = \$59,500) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$ 59,500
Estimated total machine hours	10,000 MHs
Predetermined overhead rate	\$ 5.95 per MH

The overhead applied to Job C is calculated as follows:

Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job

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= \$5.95 per MH × (3,400 MHs + 2,000 MHs)
 = \$5.95 per MH × (5,400 MHs)
 = \$32,130

151) A

Managerial Accounting Edition 18 by Garrison

The first step is to calculate the estimated total overhead costs in the two departments.

Casting

Estimated fixed manufacturing overhead	\$ 27,500
Estimated variable manufacturing overhead (\$1.70 per MH × 5,000 MHs)	8,500
Estimated total manufacturing overhead cost	<u>\$ 36,000</u>

Customizing

Estimated fixed manufacturing overhead	\$ 10,500
Estimated variable manufacturing overhead (\$2.60 per MH × 5,000 MHs)	13,000
Estimated total manufacturing overhead cost	<u>\$ 23,500</u>

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$36,000 + \$23,500 = \$59,500) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$ 59,500
Estimated total machine hours	10,000 MHs
Predetermined overhead rate	\$ 5.95 per MH

The overhead applied to Job G is calculated as follows:

Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job

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= \$5.95 per MH × (1,600 MHs + 3,000 MHs)

= \$5.95 per MH × (4,600 MHs)

= \$27,370

Job G's manufacturing cost:

Direct materials	\$ 6,800
Direct labor cost	7,900
Manufacturing overhead applied	27,370
Total manufacturing cost	<u>\$ 42,070</u>

152) D

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$624,000 + (\$3.10 per machine-hour × 80,000 machine-hours) = \$624,000 + \$248,000 = \$872,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$872,000 ÷ 80,000 machine-hours = \$10.90 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$10.90 per machine-hour × 300 machine-hours = \$3,270

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153) D

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$624,000 + (\$3.10 per machine-hour × 80,000 machine-hours) = \$624,000 + \$248,000 = \$872,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$872,000 ÷ 80,000 machine-hours = \$10.90 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$10.90 per machine-hour × 300 machine-hours = \$3,270

Direct materials	\$ 645
Direct labor	9,000
Manufacturing overhead applied	3,270
Total cost of Job M598	<u>\$ 12,915</u>

154) C

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$624,000 + (\$3.10 per machine-hour × 80,000 machine-hours) = \$624,000 + \$248,000 = \$872,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$872,000 ÷ 80,000 machine-hours = \$10.90 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$10.90 per machine-hour × 300 machine-hours = \$3,270

Direct materials	\$ 645
Direct labor	9,000
Manufacturing overhead applied	3,270
Total cost of Job M598	<u>\$ 12,915</u>
Total cost of Job M598 (a)	<u>\$ 12,915</u>
Number of units (b)	60
Unit product cost (a) ÷ (b)	\$ 215.25

155) D

Managerial Accounting Edition 18 by Garrison

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$624,000 + (\$3.10 per machine-hour × 80,000 machine-hours) = \$624,000 + \$248,000 = \$872,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$872,000 ÷ 80,000 machine-hours = \$10.90 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$10.90 per machine-hour × 300 machine-hours = \$3,270

Direct materials	\$ 645
Direct labor	9,000
Manufacturing overhead applied	3,270
Total cost of Job M598	<u>\$ 12,915</u>
Total cost of Job M598 (a)	<u>\$ 12,915</u>
Number of units (b)	60
Unit product cost (a) ÷ (b)	\$ 215.25
Unit product cost for Job M598	\$ 215.25
Markup (40% × \$215.25)	86.10
Selling price	<u><u>\$ 301.35</u></u>

156) C

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Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$58,000 + (\$2.00 per machine-hour × 20,000 machine-hours) = \$58,000 + \$40,000 = \$98,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$98,000 ÷ 20,000 machine-hours = \$4.90 per machine-hour

157) C

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$58,000 + (\$2.00 per machine-hour × 20,000 machine-hours) = \$58,000 + \$40,000 = \$98,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$98,000 ÷ 20,000 machine-hours = \$4.90 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$4.90 per machine-hour × 80 machine-hours = \$392

158) C

Managerial Accounting Edition 18 by Garrison

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$58,000 + (\$2.00 per machine-hour × 20,000 machine-hours) = \$58,000 + \$40,000 = \$98,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$98,000 ÷ 20,000 machine-hours = \$4.90 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$4.90 per machine-hour × 80 machine-hours = \$392

Direct materials	\$ 500
Direct labor	2,640
Manufacturing overhead applied	392
Total cost of Job P978	<u>\$ 3,532</u>

159) A

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$58,000 + (\$2.00 per machine-hour × 20,000 machine-hours) = \$58,000 + \$40,000 = \$98,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$98,000 ÷ 20,000 machine-hours = \$4.90 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$4.90 per machine-hour × 80 machine-hours = \$392

Direct materials	\$ 500
Direct labor	2,640
Manufacturing overhead applied	392
Total cost of Job P978	<u>\$ 3,532</u>
Total cost of Job P978 (a)	<u>\$ 3,532</u>
Number of units (b)	20
Unit product cost (a) ÷ (b)	\$ 176.60

160) B

Managerial Accounting Edition 18 by Garrison

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$58,000 + (\$2.00 per machine-hour × 20,000 machine-hours) = \$58,000 + \$40,000 = \$98,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$98,000 ÷ 20,000 machine-hours = \$4.90 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$4.90 per machine-hour × 80 machine-hours = \$392

Direct materials	\$ 500
Direct labor	2,640
Manufacturing overhead applied	392
Total cost of Job P978	<u>\$ 3,532</u>
Total cost of Job P978 (a)	<u>\$ 3,532</u>
Number of units (b)	20
Unit product cost (a) ÷ (b)	\$ 176.60
Unit product cost for Job P978	\$ 176.60
Markup (30% × \$176.60)	52.98
Selling price	<u>\$ 229.58</u>

161) B

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Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$294,000 + (\$2.30 per machine-hour × 70,000 machine-hours) = \$294,000 + \$161,000 = \$455,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$455,000 ÷ 70,000 machine-hours = \$6.50 per machine-hour

162) B

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$294,000 + (\$2.30 per machine-hour × 70,000 machine-hours) = \$294,000 + \$161,000 = \$455,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$455,000 ÷ 70,000 machine-hours = \$6.50 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$6.50 per machine-hour × 80 machine-hours = \$520

163) D

Managerial Accounting Edition 18 by Garrison

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$294,000 + (\$2.30 per machine-hour × 70,000 machine-hours) = \$294,000 + \$161,000 = \$455,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$455,000 ÷ 70,000 machine-hours = \$6.50 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$6.50 per machine-hour × 80 machine-hours = \$520

Direct materials	\$ 665
Direct labor	1,840
Manufacturing overhead applied	520
Total cost of Job M825	<u><u>\$ 3,025</u></u>

164) C

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$294,000 + (\$2.30 per machine-hour × 70,000 machine-hours) = \$294,000 + \$161,000 = \$455,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$455,000 ÷ 70,000 machine-hours = \$6.50 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$6.50 per machine-hour × 80 machine-hours = \$520

Direct materials	\$ 665
Direct labor	1,840
Manufacturing overhead applied	520
Total cost of Job M825	<u><u>\$ 3,025</u></u>
Total cost of Job M825 (a)	\$ 3,025
Number of units (b)	20
Unit product cost (a) ÷ (b)	\$ 151.25

165) C

Managerial Accounting Edition 18 by Garrison

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$294,000 + (\$2.30 per machine-hour × 70,000 machine-hours) = \$294,000 + \$161,000 = \$455,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$455,000 ÷ 70,000 machine-hours = \$6.50 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$6.50 per machine-hour × 80 machine-hours = \$520

Direct materials	\$ 665
Direct labor	1,840
Manufacturing overhead applied	520
Total cost of Job M825	<u>\$ 3,025</u>
Total cost of Job M825 (a)	<u>\$ 3,025</u>
Number of units (b)	20
Unit product cost (a) ÷ (b)	\$ 151.25
Unit product cost for Job M825	\$ 151.25
Markup (40% × \$151.25)	60.50
Selling price	<u><u>\$ 211.75</u></u>

166) B

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Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$462,000 + (\$2.20 per machine-hour × 60,000 machine-hours) = \$462,000 + \$132,000 = \$594,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$594,000 ÷ 60,000 machine-hours = \$9.90 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$9.90 per machine-hour × 80 machine-hours = \$792

167) A

Managerial Accounting Edition 18 by Garrison

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$462,000 + (\$2.20 per machine-hour × 60,000 machine-hours) = \$462,000 + \$132,000 = \$594,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$594,000 ÷ 60,000 machine-hours = \$9.90 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$9.90 per machine-hour × 80 machine-hours = \$792

Direct materials	\$ 940
Direct labor	2,240
Manufacturing overhead applied	792
Total cost of Job X455	<u><u>\$ 3,972</u></u>

168) C

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$462,000 + (\$2.20 per machine-hour × 60,000 machine-hours) = \$462,000 + \$132,000 = \$594,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$594,000 ÷ 60,000 machine-hours = \$9.90 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$9.90 per machine-hour × 80 machine-hours = \$792

Direct materials	\$ 940
Direct labor	2,240
Manufacturing overhead applied	792
Total cost of Job X455	<u><u>\$ 3,972</u></u>
Total cost of Job X455 (a)	\$ 3,972
Number of units (b)	20
Unit product cost (a) ÷ (b)	\$ 198.60

169) D

Managerial Accounting Edition 18 by Garrison

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$308,000 + (\$2.60 per machine-hour × 44,000 machine-hours) = \$308,000 + \$114,400 = \$422,400

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$422,400 ÷ 44,000 machine-hours = \$9.60 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$9.60 per machine-hour × 80 machine-hours = \$768

Direct materials	\$ 970
Direct labor	1,940
Manufacturing overhead applied	768
Total cost of Job X455	<u>\$ 3,678</u>
Total cost of Job X455 (a)	<u>\$ 3,678</u>
Number of units (b)	20
Unit product cost (a) ÷ (b)	\$ 183.90
Unit product cost for Job X455	\$ 183.90
Markup (20% × \$183.90)	36.78
Selling price	<u><u>\$ 220.68</u></u>

170) D

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Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$462,000 + (\$2.20 per machine-hour × 60,000 machine-hours) = \$462,000 + \$132,000 = \$594,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$594,000 ÷ 60,000 machine-hours = \$9.90 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$9.90 per machine-hour × 80 machine-hours = \$792

Direct materials	\$ 940
Direct labor	2,240
Manufacturing overhead applied	792
Total cost of Job X455	<u>\$ 3,972</u>
Total cost of Job X455 (a)	<u>\$ 3,972</u>
Number of units (b)	20
Unit product cost (a) ÷ (b)	\$ 198.60
Unit product cost for Job X455	\$ 198.60
Markup (20% × \$198.60)	39.72
Selling price	<u><u>\$ 238.32</u></u>

Managerial Accounting Edition 18 by Garrison

171) C

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$237,000 + (\$3.90 per machine-hour × 30,000 machine-hours) = \$237,000 + \$117,000 = \$354,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$354,000 ÷ 30,000 machine-hours = \$11.80 per machine-hour
Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$11.80 per machine-hour × 80 machine-hours = \$944

172) C

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$237,000 + (\$3.90 per machine-hour × 30,000 machine-hours) = \$237,000 + \$117,000 = \$354,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$354,000 ÷ 30,000 machine-hours = \$11.80 per machine-hour
Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$11.80 per machine-hour × 80 machine-hours = \$944

Direct materials	TBEXAM.COM	\$ 500
Direct labor		2,160
Manufacturing overhead applied		944
Total cost of Job A496		<u>\$ 3,604</u>

173) D

Managerial Accounting Edition 18 by Garrison

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$288,600 + (\$2.60 per machine-hour × 39,000 machine-hours) = \$288,600 + \$101,400 = \$390,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$390,000 ÷ 39,000 machine-hours = \$10.00 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$10.00 per machine-hour × 80 machine-hours = \$800

Direct materials	\$ 830
Direct labor	1,660
Manufacturing overhead applied	800
Total cost of Job A496	<u>\$ 3,290</u>
Total cost of Job A496 (a)	<u>\$ 3,290</u>
Number of units (b)	20
Unit product cost (a) ÷ (b)	\$ 164.50

174) D

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$237,000 + (\$3.90 per machine-hour × 30,000 machine-hours) = \$237,000 + \$117,000 = \$354,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$354,000 ÷ 30,000 machine-hours = \$11.80 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$11.80 per machine-hour × 80 machine-hours = \$944

Direct materials	\$ 500
Direct labor	2,160
Manufacturing overhead applied	944
Total cost of Job A496	<u>\$ 3,604</u>
Total cost of Job A496 (a)	<u>\$ 3,604</u>
Number of units (b)	20
Unit product cost (a) ÷ (b)	\$ 180.20

175) D

Managerial Accounting Edition 18 by Garrison

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$237,000 + (\$3.90 per machine-hour × 30,000 machine-hours) =

\$237,000 + \$117,000 = \$354,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$354,000 ÷ 30,000 machine-hours = \$11.80 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$11.80 per machine-hour × 80 machine-hours = \$944

Direct materials	\$ 500
Direct labor	2,160
Manufacturing overhead applied	944
Total cost of Job A496	<u>\$ 3,604</u>
Total cost of Job A496 (a)	<u>\$ 3,604</u>
Number of units (b)	20
Unit product cost (a) ÷ (b)	\$ 180.20
Unit product cost for Job A496	\$ 180.20
Markup (40% × \$180.20)	72.08
Selling price	<u><u>\$ 252.28</u></u>

176) A

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Managerial Accounting Edition 18 by Garrison

The first step is to calculate the estimated total overhead costs in the two departments.

Machining

Estimated fixed manufacturing overhead	\$ 33,600
Estimated variable manufacturing overhead (\$1.80 per MH × 6,000 MHs)	10,800
Estimated total manufacturing overhead cost	<u>\$ 44,400</u>

Customizing

Estimated fixed manufacturing overhead	\$ 10,000
Estimated variable manufacturing overhead (\$2.80 per MH × 4,000 MHs)	11,200
Estimated total manufacturing overhead cost	<u>\$ 21,200</u>

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$44,400 + \$21,200 = \$65,600) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$ 65,600
Estimated total machine hours	10,000 MHs
Predetermined overhead rate	\$ 6.56 per MH

The overhead applied to Job J is calculated as follows:

Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job

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= \$6.56 per MH × (1,900 MHs + 2,400 MHs)
 = \$6.56 per MH × (4,300 MHs)
 = \$28,208

177) B

Managerial Accounting Edition 18 by Garrison

The first step is to calculate the estimated total overhead costs in the two departments.

Machining

Estimated fixed manufacturing overhead	\$ 33,600
Estimated variable manufacturing overhead (\$1.80 per MH × 6,000 MHs)	10,800
Estimated total manufacturing overhead cost	<u>\$ 44,400</u>

Customizing

Estimated fixed manufacturing overhead	\$ 10,000
Estimated variable manufacturing overhead (\$2.80 per MH × 4,000 MHs)	11,200
Estimated total manufacturing overhead cost	<u>\$ 21,200</u>

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$44,400 + \$21,200 = \$65,600) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$ 65,600
Estimated total machine-hours	10,000 MHs
Predetermined overhead rate	\$ 6.56 per MH

The overhead applied to Job C is calculated as follows:

Overhead applied to a particular job = Predetermined overhead rate × Machine-hours
incurred by the job

$$= \$6.56 \text{ per MH} \times (4,100 \text{ MHs} + 1,600 \text{ MHs})$$

$$= \$6.56 \text{ per MH} \times (5,700 \text{ MHs})$$

$$= \$37,392$$

Job C's manufacturing cost:

Direct materials	\$ 11,300
Direct labor cost	18,500
Manufacturing overhead applied	37,392
Total manufacturing cost	<u>\$ 67,192</u>

178) A

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$285,000 + (\$3.80 per direct labor-hour × 50,000 direct labor-hours) = \$285,000 + \$190,000 = \$475,000

179) C

Managerial Accounting Edition 18 by Garrison

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$285,000 + (\$3.80 per direct labor-hour × 50,000 direct labor-hours) = \$285,000 + \$190,000 = \$475,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$475,000 ÷ 50,000 direct labor-hours = \$9.50 per direct labor-hour

180) B

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$285,000 + (\$3.80 per direct labor-hour × 50,000 direct labor-hours) = \$285,000 + \$190,000 = \$475,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$475,000 ÷ 50,000 direct labor-hours = \$9.50 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$9.50 per direct labor-hour × 20 direct labor-hours = \$190

181) C

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$285,000 + (\$3.80 per direct labor-hour × 50,000 direct labor-hours) = \$285,000 + \$190,000 = \$475,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$475,000 ÷ 50,000 direct labor-hours = \$9.50 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$9.50 per direct labor-hour × 20 direct labor-hours = \$190

Direct materials	\$ 710
Direct labor	500
Manufacturing overhead applied	190
Total cost of Job P513	<u><u>\$ 1,400</u></u>

182) C

Managerial Accounting Edition 18 by Garrison

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$90,000 + (\$3.50 per direct labor-hour × 30,000 direct labor-hours) = \$90,000 + \$105,000 = \$195,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$195,000 ÷ 30,000 direct labor-hours = \$6.50 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$6.50 per direct labor-hour × 100 direct labor-hours = \$650

183) C

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$90,000 + (\$3.50 per direct labor-hour × 30,000 direct labor-hours) = \$90,000 + \$105,000 = \$195,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$195,000 ÷ 30,000 direct labor-hours = \$6.50 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$6.50 per direct labor-hour × 100 direct labor-hours = \$650

Direct materials	\$ 520
Direct labor	2,800
Manufacturing overhead applied	650
Total cost of Job A477	<u><u>\$ 3,970</u></u>

184) B

Assembly Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

= \$77,600 + (\$3.00 per direct labor-hour × 8,000 direct labor-hours)

= \$77,600 + \$24,000 = \$101,600

185) B

Managerial Accounting Edition 18 by Garrison

Assembly Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

= \$77,600 + (\$3.00 per direct labor-hour × 8,000 direct labor-hours)

= \$77,600 + \$24,000 = \$101,600

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$101,600 ÷ 8,000 direct labor-hours = \$12.70 per direct labor-hour

186) A

Assembly Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

= \$77,600 + (\$3.00 per direct labor-hour × 8,000 direct labor-hours)

= \$77,600 + \$24,000 = \$101,600

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$101,600 ÷ 8,000 direct labor-hours = \$12.70 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$12.70 per direct labor-hour × 40 direct labor-hours = \$508

187) D

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Managerial Accounting Edition 18 by Garrison

Forming Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)

= \$129,200 + (\$1.60 per machine-hour × 19,000 machine-hours)

= \$129,200 + \$30,400 = \$159,600

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$159,600 ÷ 19,000 machine-hours = \$8.40 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$8.40 per machine-hour × 80 machine-hours = \$672

Assembly Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

= \$77,600 + (\$3.00 per direct labor-hour × 8,000 direct labor-hours)

= \$77,600 + \$24,000 = \$101,600

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$101,600 ÷ 8,000 direct labor-hours = \$12.70 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$12.70 per direct labor-hour × 40 direct labor-hours = \$508

Overhead applied to Job T288

Forming Department

Assembly Department

Total

TBEXAM.COM

\$ 672

508

\$ 1,180

188) D

Managerial Accounting Edition 18 by Garrison

Forming Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)

= \$129,200 + (\$1.60 per machine-hour × 19,000 machine-hours)

= \$129,200 + \$30,400 = \$159,600

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$159,600 ÷ 19,000 machine-hours = \$8.40 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$8.40 per machine-hour × 80 machine-hours = \$672

Assembly Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

= \$77,600 + (\$3.00 per direct labor-hour × 8,000 direct labor-hours)

= \$77,600 + \$24,000 = \$101,600

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$101,600 ÷ 8,000 direct labor-hours = \$12.70 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$12.70 per direct labor-hour × 40 direct labor-hours = \$508

	Forming	Assembly	Total
Direct materials	\$ 730	\$ 380	\$ 1,110
Direct labor	\$ 900	\$ 1,200	2,100
Manufacturing overhead applied	\$ 672	\$ 508	1,180
Total cost of Job T288			<u>\$ 4,390</u>

189) C

Managerial Accounting Edition 18 by Garrison

Forming Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)

= \$129,200 + (\$1.60 per machine-hour × 19,000 machine-hours)

= \$129,200 + \$30,400 = \$159,600

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$159,600 ÷ 19,000 machine-hours = \$8.40 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$8.40 per machine-hour × 80 machine-hours = \$672

Assembly Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

= \$77,600 + (\$3.00 per direct labor-hour × 8,000 direct labor-hours)

= \$77,600 + \$24,000 = \$101,600

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$101,600 ÷ 8,000 direct labor-hours = \$12.70 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$12.70 per direct labor-hour × 40 direct labor-hours = \$508

	Forming	Assembly	Total
Direct materials	\$ 730	\$ 380	\$ 1,110
Direct labor	\$ 900	\$ 1,200	2,100
Manufacturing overhead applied	\$ 672	\$ 508	1,180
Total cost of Job T288			<u>\$ 4,390</u>
Total cost of Job T288	\$ 4,390.00		
Markup (\$4,390.00 × 20%)	878.00		
Selling price	<u>\$ 5,268.00</u>		

190) B

Managerial Accounting Edition 18 by Garrison

Casting Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$ 4,800
Estimated variable manufacturing overhead (\$1.80 per MH × 1,000 MHs)	1,800
Estimated total manufacturing overhead cost (a)	<u>\$ 6,600</u>
Estimated total machine-hours (b)	1,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 6.60 per MH

Finishing Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$ 8,800
Estimated variable manufacturing overhead (\$2.90 per MH × 4,000 MHs)	11,600
Estimated total manufacturing overhead cost (a)	<u>\$ 20,400</u>
Estimated total machine-hours (b)	4,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 5.10 per MH

Manufacturing overhead applied to Job F:

Casting (\$6.60 per MH × 700 MHs)	\$ 4,620
Finishing (\$5.10 per MH × 1,600 MHs)	8,160
Total manufacturing overhead applied	<u><u>\$ 12,780</u></u>

191) D

Managerial Accounting Edition 18 by Garrison

Casting Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$ 4,800
Estimated variable manufacturing overhead (\$1.80 per MH × 1,000 MHs)	1,800
Estimated total manufacturing overhead cost (a)	<u>\$ 6,600</u>
Estimated total machine-hours (b)	1,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 6.60 per MH

Finishing Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$ 8,800
Estimated variable manufacturing overhead (\$2.90 per MH × 4,000 MHs)	11,600
Estimated total manufacturing overhead cost (a)	<u>\$ 20,400</u>
Estimated total machine-hours (b)	4,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 5.10 per MH

Manufacturing overhead applied to Job M:

Casting (\$6.60 per MH × 300 MHs)	\$ 1,980
Finishing (\$5.10 per MH × 2,400 MHs)	12,240
Total manufacturing overhead applied	<u><u>\$ 14,220</u></u>

The selling price for Job M would be calculated as follows:

Direct materials	\$ 9,000
Direct labor cost	7,400
Manufacturing overhead applied	14,220
Total manufacturing cost	<u>\$ 30,620</u>
Markup (50%)	15,310
Selling price	<u><u>\$ 45,930</u></u>

192) B

Forming Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)

= \$96,900 + (\$2.00 per machine-hour × 17,000 machine-hours)

= \$96,900 + \$34,000 = \$130,900

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$130,900 ÷ 17,000 machine-hours = \$7.70 per machine-hour

193) B

Managerial Accounting Edition 18 by Garrison

Finishing Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

= \$65,800 + (\$3.60 per direct labor-hour × 7,000 direct labor-hours)

= \$65,800 + \$25,200 = \$91,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$91,000 ÷ 7,000 direct labor-hours = \$13.00 per direct labor-hour

194) C

Forming Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)

= \$96,900 + (\$2.00 per machine-hour × 17,000 machine-hours)

= \$96,900 + \$34,000 = \$130,900

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$130,900 ÷ 17,000 machine-hours = \$7.70 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$7.70 per machine-hour × 80 machine-hours = \$616

Finishing Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

= \$65,800 + (\$3.60 per direct labor-hour × 7,000 direct labor-hours)

= \$65,800 + \$25,200 = \$91,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$91,000 ÷ 7,000 direct labor-hours = \$13.00 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$13.00 per direct labor-hour × 40 direct labor-hours = \$520

	Forming	Finishing	Total
Direct materials	\$ 840	\$ 350	\$ 1,190
Direct labor	\$ 750	\$ 1,000	1,750
Manufacturing overhead applied	\$ 616	\$ 520	1,136
Total cost of Job M381			<u>\$ 4,076</u>

195) C

Managerial Accounting Edition 18 by Garrison

Machining Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)
 = \$136,800 + (\$1.80 per machine-hour × 19,000 machine-hours)
 = \$136,800 + \$34,200 = \$171,000

196) B

Machining Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)
 = \$136,800 + (\$1.80 per machine-hour × 19,000 machine-hours)
 = \$136,800 + \$34,200 = \$171,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$171,000 ÷ 19,000 machine-hours = \$9.00 per machine-hour

197) B

Machining Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)
 = \$136,800 + (\$1.80 per machine-hour × 19,000 machine-hours)
 = \$136,800 + \$34,200 = \$171,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$171,000 ÷ 19,000 machine-hours = \$9.00 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$9.00 per machine-hour × 90 machine-hours = \$810

198) A

Managerial Accounting Edition 18 by Garrison

Machining Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)
 = \$136,800 + (\$1.80 per machine-hour × 19,000 machine-hours)

= \$136,800 + \$34,200 = \$171,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$171,000 ÷ 19,000 machine-hours = \$9.00 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$9.00 per machine-hour × 90 machine-hours = \$810

Finishing Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

= \$69,600 + (\$3.20 per direct labor-hour × 8,000 direct labor-hours)

= \$69,600 + \$25,600 = \$95,200

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$95,200 ÷ 8,000 direct labor-hours = \$11.90 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$11.90 per direct labor-hour × 50 direct labor-hours = \$595

Overhead applied to Job K928

Machining Department	TBEXAM.COM	\$ 810
Finishing Department		595
Total		<u>\$ 1,405</u>

199) B

Managerial Accounting Edition 18 by Garrison

Machining Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)

= \$136,800 + (\$1.80 per machine-hour × 19,000 machine-hours)

= \$136,800 + \$34,200 = \$171,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$171,000 ÷ 19,000 machine-hours = \$9.00 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$9.00 per machine-hour × 90 machine-hours = \$810

Finishing Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

= \$69,600 + (\$3.20 per direct labor-hour × 8,000 direct labor-hours)

= \$69,600 + \$25,600 = \$95,200

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$95,200 ÷ 8,000 direct labor-hours = \$11.90 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$11.90 per direct labor-hour × 50 direct labor-hours = \$595

	Machining	Finishing	Total
Direct materials	\$ 775	\$ 415	\$ 1,190
Direct labor	\$ 630	\$ 1,050	1,680
Manufacturing overhead applied	\$ 810	\$ 595	1,405
Total cost of Job K928			<u>\$ 4,275</u>

200) C

Managerial Accounting Edition 18 by Garrison

Machining Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)
 = \$136,800 + (\$1.80 per machine-hour × 19,000 machine-hours)

= \$136,800 + \$34,200 = \$171,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$171,000 ÷ 19,000 machine-hours = \$9.00 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$9.00 per machine-hour × 90 machine-hours = \$810

Finishing Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

= \$69,600 + (\$3.20 per direct labor-hour × 8,000 direct labor-hours)

= \$69,600 + \$25,600 = \$95,200

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$95,200 ÷ 8,000 direct labor-hours = \$11.90 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$11.90 per direct labor-hour × 50 direct labor-hours = \$595

	Machining	Finishing	Total
Direct materials	\$ 775	\$ 415	\$ 1,190
Direct labor	\$ 630	\$ 1,050	1,680
Manufacturing overhead applied	\$ 810	\$ 595	1,405
Total cost of Job K928			<u>\$ 4,275</u>
Total cost of Job K928	\$ 4,275.00		
Markup (\$4,275.00 × 20%)	855.00		
Selling price	<u>\$ 5,130.00</u>		

201) C

Managerial Accounting Edition 18 by Garrison

The first step is to calculate the estimated total overhead costs in the two departments.

Machining

Estimated fixed manufacturing overhead	\$ 4,800
Estimated variable manufacturing overhead (\$1.10 per MH × 1,000 MHs)	1,100
Estimated total manufacturing overhead cost	<u>\$ 5,900</u>

Customizing

Estimated fixed manufacturing overhead	\$ 23,400
Estimated variable manufacturing overhead (\$2.50 per MH × 9,000 MHs)	22,500
Estimated total manufacturing overhead cost	<u>\$ 45,900</u>

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$5,900 + \$45,900 = \$51,800) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$ 51,800
Estimated total machine-hours	10,000 MHs
Predetermined overhead rate	\$ 5.18 per MH

The overhead applied to Job A is calculated as follows:

Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job

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= \$5.18 per MH × (700 MHs + 3,600 MHs)

= \$5.18 per MH × (4,300 MHs)

= \$22,274

Job A's manufacturing cost:

Direct materials	\$ 12,000
Direct labor cost	20,700
Manufacturing overhead applied	22,274
Total manufacturing cost	<u>\$ 54,974</u>

The selling price for Job A:

Total manufacturing cost	\$ 54,974
Markup (50%)	27,487
Selling price	<u>\$ 82,461</u>

202) B

Managerial Accounting Edition 18 by Garrison

The first step is to calculate the estimated total overhead costs in the two departments.

Machining

Estimated fixed manufacturing overhead	\$ 4,800
Estimated variable manufacturing overhead (\$1.10 per MH × 1,000 MHs)	1,100
Estimated total manufacturing overhead cost	<u>\$ 5,900</u>

Customizing

Estimated fixed manufacturing overhead	\$ 23,400
Estimated variable manufacturing overhead (\$2.50 per MH × 9,000 MHs)	22,500
Estimated total manufacturing overhead cost	<u>\$ 45,900</u>

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$5,900 + \$45,900 = \$51,800) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$ 51,800
Estimated total machine-hours	10,000 MHs
Predetermined overhead rate	\$ 5.18 per MH

The overhead applied to Job J is calculated as follows:

Overhead applied to a particular job = Predetermined overhead rate × Machine-hours
incurred by the job

TBEXAM.COM

= \$5.18 per MH × (300 MHs + 5,400 MHs)
= \$5.18 per MH × (5,700 MHs)
= \$29,526

Job J's manufacturing cost:

Direct materials	\$ 7,700
Direct labor cost	6,400
Manufacturing overhead applied	29,526
Total manufacturing cost	<u>\$ 43,626</u>

The selling price for Job J:

Total manufacturing cost	\$ 43,626
Markup (50%)	21,813
Selling price	<u>\$ 65,439</u>

203) C

Managerial Accounting Edition 18 by Garrison

Machining Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$ 4,800
Estimated variable manufacturing overhead (\$1.10 per MH × 1,000 MHs)	1,100
Estimated total manufacturing overhead cost (a)	<u>\$ 5,900</u>
Estimated total machine-hours (b)	1,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 5.90 per MH

Customizing Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$ 23,400
Estimated variable manufacturing overhead (\$2.50 per MH × 9,000 MHs)	22,500
Estimated total manufacturing overhead cost (a)	<u>\$ 45,900</u>
Estimated total machine-hours (b)	9,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 5.10 per MH

Manufacturing overhead applied to Job A:

Machining (\$5.90 per MH × 700 MHs)	\$ 4,130
Customizing (\$5.10 per MH × 3,600 MHs)	18,360
Total manufacturing overhead applied	<u><u>\$ 22,490</u></u>

The selling price for Job A would be calculated as follows:

Direct materials	\$ 12,000
Direct labor cost	20,700
Manufacturing overhead applied	22,490
Total manufacturing cost	<u>\$ 55,190</u>
Markup (50%)	27,595
Selling price	<u><u>\$ 82,785</u></u>

204) A

Managerial Accounting Edition 18 by Garrison

Machining Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$ 4,800
Estimated variable manufacturing overhead ($\$1.10 \text{ per MH} \times 1,000 \text{ MHs}$)	1,100
Estimated total manufacturing overhead cost (a)	<u>\$ 5,900</u>
Estimated total machine-hours (b)	1,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 5.90 per MH

Customizing Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$ 23,400
Estimated variable manufacturing overhead ($\$2.50 \text{ per MH} \times 9,000 \text{ MHs}$)	22,500
Estimated total manufacturing overhead cost (a)	<u>\$ 45,900</u>
Estimated total machine-hours (b)	9,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 5.10 per MH

Manufacturing overhead applied to Job J:

Machining ($\$5.90 \text{ per MH} \times 300 \text{ MHs}$)	\$ 1,770
Customizing ($\$5.10 \text{ per MH} \times 5,400 \text{ MHs}$)	27,540
Total manufacturing overhead applied	<u><u>\$ 29,310</u></u>

The selling price for Job J would be calculated as follows:

Direct materials	\$ 7,700
Direct labor cost	6,400
Manufacturing overhead applied	29,310
Total manufacturing cost	<u>\$ 43,410</u>
Markup (50%)	21,705
Selling price	<u><u>\$ 65,115</u></u>

205) D

Milling Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)

= $\$113,400 + (\$1.60 \text{ per machine-hour} \times 18,000 \text{ machine-hours})$

= $\$113,400 + \$28,800 = \$142,200$

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = $\$142,200 \div 18,000 \text{ machine-hours} = \$7.90 \text{ per machine-hour}$

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = $\$7.90 \text{ per machine-hour} \times 60 \text{ machine-hours} = \474

Managerial Accounting Edition 18 by Garrison

206) B

Customizing Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

= \$64,400 + (\$3.90 per direct labor-hour × 7,000 direct labor-hours)

= \$64,400 + \$27,300 = \$91,700

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$91,700 ÷ 7,000 direct labor-hours = \$13.10 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$13.10 per direct labor-hour × 60 direct labor-hours = \$786

207) B

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Managerial Accounting Edition 18 by Garrison

Milling Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)

= \$92,800 + (\$1.20 per machine-hour × 16,000 machine-hours)

= \$92,800 + \$19,200 = \$112,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$112,000 ÷ 16,000 machine-hours = \$7.00 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$7.00 per machine-hour × 50 machine-hours = \$350

Customizing Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

= \$28,800 + (\$5.00 per direct labor-hour × 6,000 direct labor-hours)

= \$28,800 + \$30,000 = \$58,800

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$58,800 ÷ 6,000 direct labor-hours = \$9.80 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$9.80 per direct labor-hour × 30 direct labor-hours = \$294

	Milling	Customizing	Total
Direct materials	\$ 430	\$ 180	\$ 610
Direct labor	\$ 800	\$ 540	1,340
Manufacturing overhead applied	\$ 350	\$ 294	644
Total cost of Job A319			<u>\$ 2,594</u>
Total cost of Job A319	\$ 2,594		
Markup (\$2,594 × 10%)	259		
Selling price	<u>\$ 2,853</u>		

208) B

Managerial Accounting Edition 18 by Garrison

Milling Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)

= \$113,400 + (\$1.60 per machine-hour × 18,000 machine-hours)

= \$113,400 + \$28,800 = \$142,200

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$142,200 ÷ 18,000 machine-hours = \$7.90 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$7.90 per machine-hour × 60 machine-hours = \$474

Customizing Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

= \$64,400 + (\$3.90 per direct labor-hour × 7,000 direct labor-hours)

= \$64,400 + \$27,300 = \$91,700

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$91,700 ÷ 7,000 direct labor-hours = \$13.10 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$13.10 per direct labor-hour × 60 direct labor-hours = \$786

	Milling	Customizing	Total
Direct materials	\$ 655	\$ 305	\$ 960
Direct labor	\$ 400	\$ 1,200	1,600
Manufacturing overhead applied	\$ 474	\$ 786	1,260
Total cost of Job A319			<u>\$ 3,820</u>
Total cost of Job A319	\$ 3,820.00		
Markup (\$3,820.00 × 20%)	764.00		
Selling price	<u>\$ 4,584.00</u>		

209) C

Managerial Accounting Edition 18 by Garrison

Machining Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$ 26,500
Estimated variable manufacturing overhead (\$2.00 per MH × 5,000 MHs)	10,000
Estimated total manufacturing overhead cost (a)	<u>\$ 36,500</u>
Estimated total machine-hours (b)	5,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 7.30 per MH
Finishing Department predetermined overhead rate:	
Estimated fixed manufacturing overhead	\$ 13,500
Estimated variable manufacturing overhead (\$3.00 per MH × 5,000 MHs)	15,000
Estimated total manufacturing overhead cost (a)	<u>\$ 28,500</u>
Estimated total machine-hours (b)	5,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 5.70 per MH
Manufacturing overhead applied to Job L:	
Machining (\$7.30 per MH × 1,600 MHs)	\$ 11,680
Finishing (\$5.70 per MH × 3,000 MHs)	17,100
Total manufacturing overhead applied	<u><u>\$ 28,780</u></u>

210) D

Managerial Accounting Edition 18 by Garrison

Machining Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$ 26,500
Estimated variable manufacturing overhead (\$2.00 per MH × 5,000 MHs)	10,000
Estimated total manufacturing overhead cost (a)	<u>\$ 36,500</u>
Estimated total machine-hours (b)	5,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 7.30 per MH

Finishing Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$ 13,500
Estimated variable manufacturing overhead (\$3.00 per MH × 5,000 MHs)	15,000
Estimated total manufacturing overhead cost (a)	<u>\$ 28,500</u>
Estimated total machine-hours (b)	5,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 5.70 per MH

Manufacturing overhead applied to Job C:

Machining (\$7.30 per MH × 3,400 MHs)	\$ 24,820
Finishing (\$5.70 per MH × 2,000 MHs)	11,400
Total manufacturing overhead applied	<u><u>\$ 36,220</u></u>

The selling price for Job C would be calculated as follows:

Direct materials	\$ 12,500
Direct labor cost	20,200
Manufacturing overhead applied	36,220
Total manufacturing cost	<u>\$ 68,920</u>
Markup (20%)	13,784
Selling price	<u><u>\$ 82,704</u></u>

211) D

Managerial Accounting Edition 18 by Garrison

Machining Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour ×

Total machine-hours in the department)

= \$102,000 + (\$1.70 per machine-hour × 17,000 machine-hours)

= \$102,000 + \$28,900 = \$130,900

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation

base incurred = \$130,900 ÷ 17,000 machine-hours = \$7.70 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation

base incurred by the job = \$7.70 per machine-hour × 80 machine-hours = \$616

Customizing Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct

labor-hour × Total direct labor-hours in the department)

= \$61,200 + (\$4.10 per direct labor-hour × 6,000 direct labor-hours) = \$61,200 + \$24,600 = \$85,800

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total

amount of the allocation base incurred = \$85,800 ÷ 6,000 direct labor-hours = \$14.30 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation

base incurred by the job = \$14.30 per direct labor-hour × 50 direct labor-hours = \$715

Overhead applied to Job T268

Machining Department	\$ 616
Customizing Department	715
Total	<u>\$ 1,331</u>

212) C

Managerial Accounting Edition 18 by Garrison

Machining Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)

= \$102,000 + (\$1.70 per machine-hour × 17,000 machine-hours)

= \$102,000 + \$28,900 = \$130,900

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$130,900 ÷ 17,000 machine-hours = \$7.70 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$7.70 per machine-hour × 80 machine-hours = \$616

Customizing Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

= \$61,200 + (\$4.10 per direct labor-hour × 6,000 direct labor-hours)

= \$61,200 + \$24,600 = \$85,800

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$85,800 ÷ 6,000 direct labor-hours = \$14.30 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$14.30 per direct labor-hour × 50 direct labor-hours = \$715

	Machining	Customizing	Total
Direct materials	\$ 720	\$ 380	\$ 1,100
Direct labor	\$ 900	\$ 1,500	2,400
Manufacturing overhead applied	\$ 616	\$ 715	1,331
Total cost of Job T268			<u>\$ 4,831</u>

213) B

Managerial Accounting Edition 18 by Garrison

Machining Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)

= \$102,000 + (\$1.70 per machine-hour × 17,000 machine-hours)

= \$102,000 + \$28,900 = \$130,900

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$130,900 ÷ 17,000 machine-hours = \$7.70 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$7.70 per machine-hour × 80 machine-hours = \$616

Customizing Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

= \$61,200 + (\$4.10 per direct labor-hour × 6,000 direct labor-hours)

= \$61,200 + \$24,600 = \$85,800

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$85,800 ÷ 6,000 direct labor-hours = \$14.30 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$14.30 per direct labor-hour × 50 direct labor-hours = \$715

	Machining	Customizing	Total
Direct materials	\$ 720	\$ 380	\$ 1,100
Direct labor	\$ 900	\$ 1,500	2,400
Manufacturing overhead applied	\$ 616	\$ 715	1,331
Total cost of Job T268			<u>\$ 4,831</u>
Total cost of Job T268	\$ 4,831.00		
Markup (\$4,831.00 × 40%)	1,932.40		
Selling price	<u>\$ 6,763.40</u>		

214) A

Managerial Accounting Edition 18 by Garrison

The first step is to calculate the estimated total overhead costs in the two departments.

Forming

Estimated fixed manufacturing overhead	\$ 16,500
Estimated variable manufacturing overhead (\$1.70 per MH × 3,000 MHs)	5,100
Estimated total manufacturing overhead cost	<u>\$ 21,600</u>

Customizing

Estimated fixed manufacturing overhead	\$ 20,300
Estimated variable manufacturing overhead (\$2.50 per MH × 7,000 MHs)	17,500
Estimated total manufacturing overhead cost	<u>\$ 37,800</u>

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$21,600 + \$37,800 = \$59,400) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$ 59,400
Estimated total machine hours	10,000 MHs
Predetermined overhead rate	\$5.94 per MH

The overhead applied to Job A is calculated as follows:

Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job

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= \$5.94 per MH × (2,000 MHs + 2,800 MHs)

= \$5.94 per MH × (4,800 MHs)

= \$28,512

215) C

Managerial Accounting Edition 18 by Garrison

The first step is to calculate the estimated total overhead costs in the two departments.

Forming

Estimated fixed manufacturing overhead	\$ 16,500
Estimated variable manufacturing overhead (\$1.70 per MH × 3,000 MHs)	5,100
Estimated total manufacturing overhead cost	<u>\$ 21,600</u>

Customizing

Estimated fixed manufacturing overhead	\$ 20,300
Estimated variable manufacturing overhead (\$2.50 per MH × 7,000 MHs)	17,500
Estimated total manufacturing overhead cost	<u>\$ 37,800</u>

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$21,600 + \$37,800 = \$59,400) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$ 59,400
Estimated total machine hours	10,000 MHs
Predetermined overhead rate	\$ 5.94 per MH

The overhead applied to Job H is calculated as follows:

Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job

TBEXAM.COM

= \$5.94 per MH × (1,000 MHs + 4,200 MHs)

= \$5.94 per MH × (5,200 MHs)

= \$30,888

216) D

Managerial Accounting Edition 18 by Garrison

Forming Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$ 16,500
Estimated variable manufacturing overhead (\$1.70 per MH × 3,000 MHs)	5,100
Estimated total manufacturing overhead cost (a)	<u>\$ 21,600</u>
Estimated total machine-hours (b)	3,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$7.20 per MH

Customizing Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$ 20,300
Estimated variable manufacturing overhead (\$2.50 per MH × 7,000 MHs)	17,500
Estimated total manufacturing overhead cost (a)	<u>\$ 37,800</u>
Estimated total machine-hours (b)	7,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 5.40 per MH

Manufacturing overhead applied to Job A:

Forming (\$7.20 per MH × 2,000 MHs)	\$ 14,400
Customizing (\$5.40 per MH × 2,800 MHs)	15,120
Total manufacturing overhead applied	<u><u>\$ 29,520</u></u>

217) C

Managerial Accounting Edition 18 by Garrison

Forming Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$ 16,500
Estimated variable manufacturing overhead (\$1.70 per MH × 3,000 MHs)	5,100
Estimated total manufacturing overhead cost (a)	<u>\$ 21,600</u>
Estimated total machine-hours (b)	3,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 7.20 per MH

Customizing Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$ 20,300
Estimated variable manufacturing overhead (\$2.50 per MH × 7,000 MHs)	17,500
Estimated total manufacturing overhead cost (a)	<u>\$ 37,800</u>
Estimated total machine-hours (b)	7,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$5.40 per MH

Manufacturing overhead applied to Job H:

Forming (\$7.20 per MH × 1,000 MHs)	\$ 7,200
Customizing (\$5.40 per MH × 4,200 MHs)	22,680
Total manufacturing overhead applied	<u><u>\$ 29,880</u></u>

218) A

Casting Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)

= \$129,200 + (\$1.80 per machine-hour × 17,000 machine-hours)

= \$129,200 + \$30,600 = \$159,800

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$159,800 ÷ 17,000 machine-hours = \$9.40 per machine-hour

219) D

Managerial Accounting Edition 18 by Garrison

Assembly Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

= \$46,500 + (\$3.80 per direct labor-hour × 5,000 direct labor-hours)

= \$46,500 + \$19,000 = \$65,500

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$65,500 ÷ 5,000 direct labor-hours = \$13.10 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$13.10 per direct labor-hour × 60 direct labor-hours = \$786

220) A

Machining Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)

= \$79,200 + (\$2.00 per machine-hour × 24,000 machine-hours)

= \$79,200 + \$48,000 = \$127,200

221) A

Machining Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)

= \$104,000 + (\$2.10 per machine-hour × 16,000 machine-hours)

= \$104,000 + \$33,600 = \$137,600

222) D

Customizing Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

= \$56,400 + (\$3.30 per direct labor-hour × 6,000 direct labor-hours)

= \$56,400 + \$19,800 = \$76,200

223) D

Machining Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)

= \$104,000 + (\$2.10 per machine-hour × 16,000 machine-hours)

= \$104,000 + \$33,600 = \$137,600

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$137,600 ÷ 16,000 machine-hours = \$8.60 per machine-hour

224) B

Managerial Accounting Edition 18 by Garrison

Customizing Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

= \$56,400 + (\$3.30 per direct labor-hour × 6,000 direct labor-hours)

= \$56,400 + \$19,800 = \$76,200

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$76,200 ÷ 6,000 direct labor-hours = \$12.70 per direct labor-hour

225) C

Machining Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)

= \$104,000 + (\$2.10 per machine-hour × 16,000 machine-hours)

= \$104,000 + \$33,600 = \$137,600

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$137,600 ÷ 16,000 machine-hours = \$8.60 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$8.60 per machine-hour × 60 machine-hours = \$516

226) B

Customizing Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

= \$56,400 + (\$3.30 per direct labor-hour × 6,000 direct labor-hours)

= \$56,400 + \$19,800 = \$76,200

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$76,200 ÷ 6,000 direct labor-hours = \$12.70 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$12.70 per direct labor-hour × 60 direct labor-hours = \$762

227) C

Managerial Accounting Edition 18 by Garrison

Forming Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)

= \$138,000 + (\$2.30 per machine-hour × 20,000 machine-hours)

= \$138,000 + \$46,000 = \$184,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$184,000 ÷ 20,000 machine-hours = \$9.20 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$9.20 per machine-hour × 80 machine-hours = \$736

228) C

Assembly Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

= \$58,100 + (\$3.00 per direct labor-hour × 7,000 direct labor-hours)

= \$58,100 + \$21,000 = \$79,100

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$79,100 ÷ 7,000 direct labor-hours = \$11.30 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$11.30 per direct labor-hour × 50 direct labor-hours = \$565

229) C

Finishing Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

= \$52,800 + (\$3.80 per direct labor-hour × 6,000 direct labor-hours)

= \$52,800 + \$22,800 = \$75,600

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$75,600 ÷ 6,000 direct labor-hours = \$12.60 per direct labor-hour

230) A

Managerial Accounting Edition 18 by Garrison

Machining Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)

= \$138,700 + (\$1.90 per machine-hour × 19,000 machine-hours)

= \$138,700 + \$36,100 = \$174,800

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$174,800 ÷ 19,000 machine-hours = \$9.20 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$9.20 per machine-hour × 90 machine-hours = \$828

231) D

Forming Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)

= \$102,400 + (\$2.30 per machine-hour × 16,000 machine-hours)

= \$102,400 + \$36,800 = \$139,200

232) C

Assembly Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

= \$55,200 + (\$4.50 per direct labor-hour × 6,000 direct labor-hours)

= \$55,200 + \$27,000 = \$82,200

233) A

Managerial Accounting Edition 18 by Garrison

Forming Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)

= \$102,400 + (\$2.30 per machine-hour × 16,000 machine-hours)

= \$102,400 + \$36,800 = \$139,200

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$139,200 ÷ 16,000 machine-hours = \$8.70 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$8.70 per machine-hour × 70 machine-hours = \$609

Assembly Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

= \$55,200 + (\$4.50 per direct labor-hour × 6,000 direct labor-hours)

= \$55,200 + \$27,000 = \$82,200

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$82,200 ÷ 6,000 direct labor-hours = \$13.70 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$13.70 per direct labor-hour × 40 direct labor-hours = \$548

Overhead applied to Job T924

Forming Department	TBEXAM.COM	\$ 609
Assembly Department		548
Total		<u>\$ 1,157</u>

234) B

Forming Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$ 28,000
Estimated variable manufacturing overhead (\$1.80 per MH × 5,000 MHs)	9,000
Estimated total manufacturing overhead cost (a)	<u>\$ 37,000</u>
Estimated total machine-hours (b)	5,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 7.40 per MH

235) B

Managerial Accounting Edition 18 by Garrison

Assembly Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$ 10,500
Estimated variable manufacturing overhead (\$2.60 per MH × 5,000 MHs)	13,000
Estimated total manufacturing overhead cost (a)	<u>\$ 23,500</u>
Estimated total machine-hours (b)	5,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 4.70 per MH

236) D

Forming Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$ 28,000
Estimated variable manufacturing overhead (\$1.80 per MH × 5,000 MHs)	9,000
Estimated total manufacturing overhead cost (a)	<u>\$ 37,000</u>
Estimated total machine-hours (b)	5,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 7.40 per MH

Assembly Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$ 10,500
Estimated variable manufacturing overhead (\$2.60 per MH × 5,000 MHs)	13,000
Estimated total manufacturing overhead cost (a)	<u>\$ 23,500</u>
Estimated total machine-hours (b)	5,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 4.70 per MH

Manufacturing overhead applied to Job B:

Forming (\$7.40 per MH × 3,400 MHs)	\$ 25,160
Assembly (\$4.70 per MH × 2,000 MHs)	9,400
Total manufacturing overhead applied	<u><u>\$ 34,560</u></u>

237) C

Managerial Accounting Edition 18 by Garrison

Forming Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$ 28,000
Estimated variable manufacturing overhead (\$1.80 per MH × 5,000 MHs)	9,000
Estimated total manufacturing overhead cost (a)	<u>\$ 37,000</u>
Estimated total machine-hours (b)	5,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 7.40 per MH

Assembly Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$ 10,500
Estimated variable manufacturing overhead (\$2.60 per MH × 5,000 MHs)	13,000
Estimated total manufacturing overhead cost (a)	<u>\$ 23,500</u>
Estimated total machine-hours (b)	5,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 4.70 per MH

Manufacturing overhead applied to Job L:

Forming (\$7.40 per MH × 1,600 MHs)	\$ 11,840
Assembly (\$4.70 per MH × 3,000 MHs)	14,100
Total manufacturing overhead applied	<u><u>\$ 25,940</u></u>

238) A

Customizing Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)
 = \$42,000 + (\$4.30 per direct labor-hour × 5,000 direct labor-hours)
 = \$42,000 + \$21,500 = \$63,500

239) D

Managerial Accounting Edition 18 by Garrison

Milling Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)

= \$119,000 + (\$1.60 per machine-hour × 17,000 machine-hours)

= \$119,000 + \$27,200 = \$146,200

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$146,200 ÷ 17,000 machine-hours = \$8.60 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$8.60 per machine-hour × 90 machine-hours = \$774

240) B

Milling Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)

= \$112,200 + (\$1.70 per machine-hour × 17,000 machine-hours)

= \$112,200 + \$28,900 = \$141,100

241) C

Customizing Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

= \$81,000 + (\$4.30 per direct labor-hour × 9,000 direct labor-hours)

= \$81,000 + \$38,700 = \$119,700

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$119,700 ÷ 9,000 direct labor-hours = \$13.30 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$13.30 per direct labor-hour × 50 direct labor-hours = \$665

242) D

Milling Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)

= \$148,000 + (\$1.90 per machine-hour × 20,000 machine-hours)

= \$148,000 + \$38,000 = \$186,000

243) D

Managerial Accounting Edition 18 by Garrison

Finishing Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

$$= \$88,000 + (\$3.60 \text{ per direct labor-hour} \times 8,000 \text{ direct labor-hours})$$

$$= \$88,000 + \$28,800 = \$116,800$$

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = $\$116,800 \div 8,000 \text{ direct labor-hours} = \$14.60 \text{ per direct labor-hour}$

244) C

Customizing Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

$$= \$44,800 + (\$4.30 \text{ per direct labor-hour} \times 8,000 \text{ direct labor-hours})$$

$$= \$44,800 + \$34,400 = \$79,200$$

245) C

Customizing Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

$$= \$68,600 + (\$4.30 \text{ per direct labor-hour} \times 7,000 \text{ direct labor-hours})$$

$$= \$68,600 + \$30,100 = \$98,700$$

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246) A

Casting Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)

$$= \$152,000 + (\$2.10 \text{ per machine-hour} \times 20,000 \text{ machine-hours})$$

$$= \$152,000 + \$42,000 = \$194,000$$

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = $\$194,000 \div 20,000 \text{ machine-hours} = \$9.70 \text{ per machine-hour}$

247) B

Casting Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)

$$= \$105,400 + (\$1.70 \text{ per machine-hour} \times 17,000 \text{ machine-hours})$$

$$= \$105,400 + \$28,900 = \$134,300$$

248) A

Managerial Accounting Edition 18 by Garrison

Finishing Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)
 = \$52,000 + (\$3.90 per direct labor-hour × 5,000 direct labor-hours)
 = \$52,000 + \$19,500 = \$71,500

249) D

Forming Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)
 = \$100,700 + (\$2.00 per machine-hour × 19,000 machine-hours)
 = \$100,700 + \$38,000 = \$138,700

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$138,700 ÷ 19,000 machine-hours = \$7.30 per machine-hour

250) D

Customizing Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)
 = \$63,000 + (\$3.90 per direct labor-hour × 6,000 direct labor-hours)
 = \$63,000 + \$23,400 = \$86,400

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base incurred = \$86,400 ÷ 6,000 direct labor-hours = \$14.40 per direct labor-hour

251) C

Managerial Accounting Edition 18 by Garrison

The first step is to calculate the estimated total overhead costs in the two departments.

Casting

Estimated fixed manufacturing overhead	\$ 17,700
Estimated variable manufacturing overhead (\$1.50 per MH × 3,000 MHs)	4,500
Estimated total manufacturing overhead cost	<u>\$ 22,200</u>

Assembly

Estimated fixed manufacturing overhead	\$ 5,800
Estimated variable manufacturing overhead (\$2.20 per MH × 2,000 MHs)	4,400
Estimated total manufacturing overhead cost	<u>\$ 10,200</u>

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$22,200 + \$10,200 = \$32,400) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$ 32,400
Estimated total machine hours	5,000 MHs
Predetermined overhead rate	\$ 6.48 per MH

252) B

Casting Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$ 17,700
Estimated variable manufacturing overhead (\$1.50 per MH × 3,000 MHs)	4,500
Estimated total manufacturing overhead cost (a)	<u>\$ 22,200</u>
Estimated total machine-hours (b)	3,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 7.40 per MH

253) C

Managerial Accounting Edition 18 by Garrison

Assembly Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$ 5,800
Estimated variable manufacturing overhead (\$2.20 per MH × 2,000 MHs)	4,400
Estimated total manufacturing overhead cost (a)	<u>\$ 10,200</u>
Estimated total machine-hours (b)	2,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 5.10 per MH

254) B

Job C11

Direct materials	\$ 18,000
Direct labor	5,000
Manufacturing overhead (150% of direct labor cost)	7,500
Work in process inventory	<u>\$ 30,500</u>

255) C

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Job B19

Direct materials	\$ 25,000
Direct labor	10,000
Manufacturing overhead (150% of direct labor cost)	15,000
Cost of goods sold	<u>\$ 50,000</u>

256) A

Job B18

Direct materials	\$ 12,000
Direct labor	8,000
Manufacturing overhead (150% of direct labor cost)	12,000
Finished goods inventory	<u>\$ 32,000</u>

257) C

Managerial Accounting Edition 18 by Garrison

Job Number	June 1 Work in Process Inventory	Direct Materials	Direct Labor	Manufacturing Overhead (80% of Direct Materials)	Total
235	\$ 2,500	\$ 600	\$ 400	\$ 480	\$ 3,980
236	1,500	800	1,000	640	3,940
237	1,000	1,200	1,750	960	4,910
238	800	1,500	2,250	1,200	5,750
Total	\$ 5,800	\$ 4,100	\$ 5,400	\$ 3,280	\$ 18,580

Cost of goods sold = \$3,980 + \$5,750 = \$9,730

258) B

Job Number	June 1 Work in Process Inventory	Direct Materials	Direct Labor	Manufacturing Overhead (80% of Direct Materials)	Total
236	\$ 1,500	\$ 800	\$ 1,000	\$ 640	\$ 3,940

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259) D

Job Number	June 1 Work in Process Inventory	Direct Materials	Direct Labor	Manufacturing Overhead (80% of Direct Materials)	Total
237	\$ 5,500	\$ 2,100	\$ 3,550	\$ 1,680	\$ 12,830

260) D

Job Number	June 1 Work in Process Inventory	Direct Materials	Direct Labor	Manufacturing Overhead (80% of Direct Materials)	Total
237	\$ 1,000	\$ 1,200	\$ 1,750	\$ 960	\$ 4,910

261) B

Managerial Accounting Edition 18 by Garrison

Step 1: Calculate the total job cost:

Beginning balance	\$ 186,700
Direct materials	590,500
Direct labor cost	518,700
Manufacturing overhead cost applied	629,100
Total job cost	<u>\$ 1,925,000</u>

Step 2: Compute the unit product cost:

Total job cost (a)	\$ 1,925,000
Number of units in the job (b)	35,000
Unit product cost (a) ÷ (b)	\$ 55.00

Step 3: Compute the cost of goods sold:

Number of units sold (a)	15,000
Unit product cost (b)	\$ 55.00
Cost of goods sold (a) × (b)	\$ 825,000

262) B

Step 1: Calculate the total job cost:

Beginning balance	\$ 66,700
Direct materials	494,500
Direct labor cost	158,700
Manufacturing overhead cost applied	269,100
Total job cost	<u>\$ 989,000</u>

Step 2: Compute the unit product cost:

Total job cost (a)	\$ 989,000
Number of units in the job (b)	23,000
Unit product cost (a) ÷ (b)	\$ 43.00

Step 3: Compute the cost of goods sold:

Number of units sold (a)	3,000
Unit product cost (b)	\$ 43.00
Cost of goods sold (a) × (b)	\$ 129,000

263) D

Managerial Accounting Edition 18 by Garrison

Step 1: Calculate the total job cost:

Beginning balance	\$ 66,700
Direct materials	494,500
Direct labor cost	158,700
Manufacturing overhead cost applied	269,100
Total job cost	<u>\$ 989,000</u>

Step 2: Compute the unit product cost:

Total job cost (a)	\$ 989,000
Number of units in the job (b)	23,000
Unit product cost (a) ÷ (b)	\$ 43.00

Step 3: Compute the finished goods inventory:

Number of units in ending inventory (a)	20,000
Unit product cost (b)	\$ 43.00
Finished goods inventory (a) × (b)	\$ 860,000

264) D

Total manufacturing cost for the job (a)	\$ 1,118,600
Total number of units produced (b)	17,000
Unit product cost (a) ÷ (b)	\$ 65.80
Cost of goods sold (1,000 units × \$65.80 per unit)	\$ 65,800

265) A

Total manufacturing cost for the job (a)	\$ 1,118,600
Total number of units produced (b)	17,000
Unit product cost (a) ÷ (b)	\$ 65.80
Finished goods inventory (16,000 units × \$65.80 per unit)	\$ 1,052,800

266) C

Managerial Accounting Edition 18 by Garrison

Beginning balance	\$ 86,100
Direct materials	533,400
Direct labor cost	130,200
Manufacturing overhead cost applied	321,300
Total manufacturing cost for the job	<u>\$ 1,071,000</u>
Total number of units produced	<u>21,000</u>
Unit product cost	\$ 51.00
Cost of goods sold (15,000 units × \$51.00 per unit)	\$ 765,000

267) A

Beginning balance	\$ 134,100
Direct materials	1,013,400
Direct labor cost	370,200
Manufacturing overhead cost applied	561,300
Total manufacturing cost for the job	<u>\$ 2,079,000</u>
Total number of units produced	<u>33,000</u>
Unit product cost	\$ 63.00
Finished goods inventory (6,000 units × \$63.00 per unit)	\$ 378,000

268) A

Beginning balance	\$ 86,100
Direct materials	533,400
Direct labor cost	130,200
Manufacturing overhead cost applied	321,300
Total manufacturing cost for the job	<u>\$ 1,071,000</u>
Total number of units produced	<u>21,000</u>
Unit product cost	\$ 51.00
Finished goods inventory (6,000 units × \$51.00 per unit)	\$ 306,000

269) B

Total manufacturing cost for the job (a)	\$ 702,000
Total number of units produced (b)	18,000
Unit product cost (a) ÷ (b)	\$ 39.00

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270) A

Step 1: Calculate the unit product cost:

Total manufacturing cost for the job (a)	\$ 702,000
Total number of units produced (b)	18,000
Unit product cost (a) ÷ (b)	\$ 39.00

Step 2: Calculate the cost of goods sold:

Unit sales (a)	13,000
Unit product cost (b)	\$ 39.00
Cost of goods sold (a) × (b)	\$ 507,000

271) B

Step 1: Calculate the unit product cost:

Total manufacturing cost for the job (a)	\$ 702,000
Total number of units produced (b)	18,000
Unit product cost (a) ÷ (b)	\$ 39.00

Step 2: Calculate the cost of goods sold:

Units in finished goods inventory (a)	5,000
Unit product cost (b)	\$ 39.00
Finished goods inventory (a) × (b)	\$ 195,000

272) Essay

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Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$144,000 + (\$4.00 per machine-hour × 30,000 machine-hours) = \$144,000 + \$120,000 = \$264,000

273) Essay

- Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$287,000 + (\$3.50 per machine-hour × 70,000 machine-hours) = \$287,000 + \$245,000 = \$532,000
- Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$532,000 ÷ 70,000 machine-hours = \$7.60 per machine-hour

274) Essay

Estimated total manufacturing overhead = \$1,043,200 + (\$8.30 per labor-hour × 64,000 labor-hours) = \$1,574,400

Predetermined overhead rate = \$1,574,400 ÷ 64,000 labor-hours = \$24.60 per labor-hour

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275) Essay

Estimated total manufacturing overhead = \$1,533,180 + (\$8.41 per labor-hour × 66,000 labor-hours) = \$2,088,240

Predetermined overhead rate = \$2,088,240 ÷ 66,000 labor-hours = \$31.64 per labor-hour

276) Essay

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$401,000 + (\$4.40 per machine-hour × 47,000 machine-hours) = \$401,000 + \$206,800 = \$607,800

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$607,800 ÷ 47,000 machine-hours = \$12.90 per machine-hour

277) Essay

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$390,000 + (\$3.60 per machine-hour × 50,000 machine-hours) = \$390,000 + \$180,000 = \$570,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$570,000 ÷ 50,000 machine-hours = \$11.40 per machine-hour

278) Essay

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$248,000 + (\$3.80 per machine-hour × 40,000 machine-hours) = \$248,000 + \$152,000 = \$400,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$400,000 ÷ 40,000 machine-hours = \$10.00 per machine-hour

279) Essay

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$152,000 + (\$3.10 per machine-hour × 40,000 machine-hours) = \$152,000 + \$124,000 = \$276,000

280) Essay

Estimated total manufacturing overhead = \$705,220 + (\$4.43 per labor-hour × 37,000 labor-hours) = \$869,130

Predetermined overhead rate = \$869,130 ÷ 37,000 labor-hours = \$23.49 per labor-hour

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281) Essay

Estimated total manufacturing overhead = \$985,920 + (\$9.99 per labor-hour × 78,000 labor-hours) = \$1,765,140

Predetermined overhead rate = \$1,765,140 ÷ 78,000 labor-hours = \$22.63 per labor-hour

282) Essay

Estimated total manufacturing overhead = \$1,077,000 + (\$8.82 per machine-hour × 50,000 machine-hours) = \$1,518,000

Predetermined overhead rate = \$1,518,000 ÷ 50,000 machine-hours = \$30.36 per machine-hour

283) Essay

- c. Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$31,000 + (\$2.50 per direct labor-hour × 10,000 direct labor-hours) = \$31,000 + \$25,000 = \$56,000
- d. Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$56,000 ÷ 10,000 direct labor-hours = \$5.60 per direct labor-hour

284) Essay

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$76,500 + (\$3.80 per direct labor-hour × 51,000 direct labor-hours) = \$76,500 + \$193,800 = \$270,300

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$270,300 ÷ 51,000 direct labor-hours = \$5.30 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$5.30 per direct labor-hour × 120 direct labor-hours = \$636

285) Essay

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Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$160,000 + (\$2.30 per direct labor-hour × 80,000 direct labor-hours) = \$160,000 + \$184,000 = \$344,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$344,000 ÷ 80,000 direct labor-hours = \$4.30 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$4.30 per direct labor-hour × 120 direct labor-hours = \$516

286) Essay

Estimated total fixed manufacturing overhead (a)	\$358,000
Estimated activity level (b)	20,000 machine-hours
Predetermined overhead rate (a) ÷ (b)	\$ 17.90 per machine-hour
Actual activity level	18,300 machine-hours
Manufacturing overhead applied	\$327,570

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287) Essay

- e. Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$96,000 + (\$3.60 per direct labor-hour × 62,000 direct labor-hours) = \$96,000 + \$223,200 = \$319,200
- f. Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$319,200 ÷ 62,000 direct labor-hours = \$5.10 per direct labor-hour
- g. Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$5.10 per direct labor-hour × 100 direct labor-hours = \$510

288) Essay

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- h. Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$96,000 + (\$3.30 per direct labor-hour × 60,000 direct labor-hours) = \$96,000 + \$198,000 = \$294,000
- i. Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$294,000 ÷ 60,000 direct labor-hours = \$4.90 per direct labor-hour
- j. Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$4.90 per direct labor-hour × 100 direct labor-hours = \$490

289) Essay

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$50,000 + (\$3.90 per machine-hour × 10,000 machine-hours) = \$50,000 + \$39,000 = \$89,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$89,000 ÷ 10,000 machine-hours = \$8.90 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$8.90 per machine-hour × 160 machine-hours = \$1,424

290) Essay

- k. Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$342,000 + (\$2.40 per direct labor-hour × 60,000 direct labor-hours) = \$342,000 + \$144,000 = \$486,000
- l. Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$486,000 ÷ 60,000 direct labor-hours = \$8.10 per direct labor-hour
- m. Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$8.10 per direct labor-hour × 90 direct labor-hours = \$729

291) Essay

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Estimated total fixed manufacturing overhead (a)	\$ 114,000
Estimated activity level (b)	10,000 machine-hours
Predetermined overhead rate (a) ÷ (b)	\$ 11.40 per machine-hour
Actual activity level	9,400 machine-hours
Manufacturing overhead applied	\$ 107,160

292) Essay

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Managerial Accounting Edition 18 by Garrison

The first step is to calculate the estimated total overhead costs in the two departments.

Casting

Estimated fixed manufacturing overhead	\$11,600
Estimated variable manufacturing overhead (\$1.90 per MH × 2,000 MHs)	3,800
Estimated total manufacturing overhead cost	<u>\$15,400</u>

Customizing

Estimated fixed manufacturing overhead	\$ 7,200
Estimated variable manufacturing overhead (\$2.80 per MH × 3,000 MHs)	8,400
Estimated total manufacturing overhead cost	<u>\$15,600</u>

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$15,400 + \$15,600 = \$31,000) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$31,000
Estimated total machine hours	5,000 MHs
Predetermined overhead rate	\$ 6.20 per MH

The overhead applied to Job F is calculated as follows:

Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job
 $= \$6.20 \text{ per MH} \times (1,400 \text{ MHs} + 1,200 \text{ MHs})$
 $= \$6.20 \text{ per MH} \times (2,600 \text{ MHs})$
 $= \$16,120$

The overhead applied to Job L is calculated as follows:

Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job
 $= \$6.20 \text{ per MH} \times (600 \text{ MHs} + 1,800 \text{ MHs})$
 $= \$6.20 \text{ per MH} \times (2,400 \text{ MHs})$
 $= \$14,880$

Job F's manufacturing cost:

Direct materials	\$ 10,600
Direct labor cost	24,400
Manufacturing overhead applied	16,120
Total manufacturing cost	<u>\$ 51,120</u>

Job L's manufacturing cost:

Direct materials	\$ 6,600
Direct labor cost	8,600
Manufacturing overhead applied	14,880

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Total manufacturing cost	\$30,080
The selling price for Job F:	
Total manufacturing cost	\$ 51,120
Markup (50%)	25,560
Selling price	\$ 76,680
The selling price for Job L:	
Total manufacturing cost	\$ 30,080
Markup (50%)	15,040
Selling price	\$ 45,120

293) Essay

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$460,000 + (\$3.10 per machine-hour × 50,000 machine-hours) = \$460,000 + \$155,000 = \$615,000
 Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$615,000 ÷ 50,000 machine-hours = \$12.30 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$12.30 per machine-hour × 150 machine-hours = \$1,845

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Direct materials	\$ 740
Direct labor	6,000
Manufacturing overhead applied	1,845
Total cost of Job P647	\$8,585
Total cost of Job P647 (a)	\$ 8,585
Number of units (b)	50
Unit product cost (a) ÷ (b)	\$171.70

294) Essay

Managerial Accounting Edition 18 by Garrison

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$273,000 + (\$3.00 per direct labor-hour × 35,000 direct labor-hours) = \$273,000 + \$105,000 = \$378,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$378,000 ÷ 35,000 direct labor-hours = \$10.80 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$10.80 per direct labor-hour × 250 direct labor-hours = \$2,700

Direct materials	\$ 500
Direct labor	6,900
Manufacturing overhead applied	2,700
Total cost of Job X941	<u>\$10,100</u>
Total cost of Job X941 (a)	<u>\$ 10,100</u>
Number of units (b)	50
Unit product cost (a) ÷ (b)	\$202.00
Unit product cost for Job X941	\$ 202.00
Markup (20% × \$202.00)	40.40
Selling price	<u><u>\$ 242.40</u></u>

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295) Essay

Managerial Accounting Edition 18 by Garrison

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$182,000 + (\$2.50 per direct labor-hour × 20,000 direct labor-hours) = \$182,000 + \$50,000 = \$232,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$232,000 ÷ 20,000 direct labor-hours = \$11.60 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$11.60 per direct labor-hour × 250 direct labor-hours = \$2,900

Direct materials	\$ 740
Direct labor	6,500
Manufacturing overhead applied	2,900
Total cost of Job X941	<u>\$10,140</u>
Total cost of Job X941 (a)	<u>\$ 10,140</u>
Number of units (b)	50
Unit product cost (a) ÷ (b)	\$ 202.80
Unit product cost for Job X941	\$ 202.80
Markup (20% × \$202.80)	40.56
Selling price	<u><u>\$ 243.36</u></u>

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296) Essay

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$630,000 + (\$3.40 per machine-hour × 70,000 machine-hours) = \$630,000 + \$238,000 = \$868,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$868,000 ÷ 70,000 machine-hours = \$12.40 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$12.40 per machine-hour × 200 machine-hours = \$2,480

Direct materials	\$ 670
Direct labor	7,800
Manufacturing overhead applied	2,480
Total cost of Job X159	<u><u>\$10,950</u></u>

297) Essay

Managerial Accounting Edition 18 by Garrison

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$164,500 + (\$4.00 per machine-hour × 47,000 machine-hours) = \$164,500 + \$188,000 = \$352,500

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$352,500 ÷ 47,000 machine-hours = \$7.50 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$7.50 per machine-hour × 70 machine-hours = \$525

Direct materials	\$ 725
Direct labor	1,700
Manufacturing overhead applied	525
Total cost of Job M242	<u>\$ 2,950</u>
Total cost of Job M242 (a)	<u>\$ 2,950</u>
Number of units (b)	20
Unit product cost (a) ÷ (b)	\$ 147.50

298) Essay

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$156,000 + (\$2.20 per machine-hour × 40,000 machine-hours) = \$156,000 + \$88,000 = \$244,000
 Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$244,000 ÷ 40,000 machine-hours = \$6.10 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$6.10 per machine-hour × 60 machine-hours = \$366

Direct materials	\$ 725
Direct labor	1,680
Manufacturing overhead applied	366
Total cost of Job M242	<u>\$2,771</u>
Total cost of Job M242 (a)	<u>\$ 2,771</u>
Number of units (b)	20
Unit product cost (a) ÷ (b)	\$138.55

299) Essay

Managerial Accounting Edition 18 by Garrison

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$76,000 + (\$3.70 per machine-hour × 11,000 machine-hours) = \$76,000 + \$40,700 = \$116,700

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$116,700 ÷ 11,000 machine-hours = \$10.60 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$10.60 per machine-hour × 70 machine-hours = \$742

Direct materials	\$ 730
Direct labor	1,700
Manufacturing overhead applied	742
Total cost of Job P512	<u>\$ 3,172</u>
Total cost of Job P512 (a)	<u>\$ 3,172</u>
Number of units (b)	25
Unit product cost (a) ÷ (b)	\$ 126.88

300) Essay

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$71,000 + (\$2.50 per machine-hour × 10,000 machine-hours) = \$71,000 + \$25,000 = \$96,000
 Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$96,000 ÷ 10,000 machine-hours = \$9.60 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$9.60 per machine-hour × 60 machine-hours = \$576

Direct materials	\$ 870
Direct labor	2,400
Manufacturing overhead applied	576
Total cost of Job P512	<u>\$3,846</u>
Total cost of Job P512 (a)	<u>\$ 3,846</u>
Number of units (b)	30
Unit product cost (a) ÷ (b)	\$128.20

301) Essay

Managerial Accounting Edition 18 by Garrison

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$136,000 + (\$2.90 per machine-hour × 40,000 machine-hours) = \$136,000 + \$116,000 = \$252,000
 Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$252,000 ÷ 40,000 machine-hours = \$6.30 per machine-hour
 Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$6.30 per machine-hour × 300 machine-hours = \$1,890

Direct materials	\$ 585
Direct labor	7,200
Manufacturing overhead applied	1,890
Total cost of Job A290	<u>\$9,675</u>

302) Essay

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$342,000 + (\$2.70 per machine-hour × 60,000 machine-hours) = \$342,000 + \$162,000 = \$504,000
 Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$504,000 ÷ 60,000 machine-hours = \$8.40 per machine-hour
 Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$8.40 per machine-hour × 140 machine-hours = \$1,176

Direct materials	\$ 945
Direct labor	2,800
Manufacturing overhead applied	1,176
Total cost of Job M238	<u>\$4,921</u>

303) Essay

Managerial Accounting Edition 18 by Garrison

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$96,000 + (\$3.60 per direct labor-hour × 10,000 direct labor-hours) = \$96,000 + \$36,000 = \$132,000
 Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$132,000 ÷ 10,000 direct labor-hours = \$13.20 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$13.20 per direct labor-hour × 200 direct labor-hours = \$2,640

Direct materials	\$ 540
Direct labor	6,400
Manufacturing overhead applied	2,640
Total cost of Job A735	\$9,580
Total cost of Job A735 (a)	\$ 9,580
Number of units (b)	40
Unit product cost (a) ÷ (b)	\$ 239.50

304) Essay

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Managerial Accounting Edition 18 by Garrison

The first step is to calculate the estimated total overhead costs in the two departments.

Molding

Estimated fixed manufacturing overhead	\$ 25,000
Estimated variable manufacturing overhead (\$1.80 per machine hour × 5,000 machine hours)	9,000
Estimated total manufacturing overhead cost	<u>\$ 34,000</u>

Customizing

Estimated fixed manufacturing overhead	\$ 20,000
Estimated variable manufacturing overhead (\$2.70 per machine hour × 5,000 machine hours)	13,500
Estimated total manufacturing overhead cost	<u>\$ 33,500</u>

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$34,000 + \$33,500 = \$67,500) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$ 67,500
Estimated total machine hours	10,000 machine hours
Predetermined overhead rate	\$ 6.75 per machine hour

Direct materials	\$ 12,700
Direct labor cost	\$ 19,100
Manufacturing overhead applied	43,200
Total manufacturing cost	<u>\$ 75,000</u>

Direct materials	\$ 6,400
Direct labor cost	\$ 7,900
Manufacturing overhead applied	38,475
Total manufacturing cost	<u>\$ 52,775</u>

Total manufacturing cost	\$ 75,000
Markup (30%)	22,500
Selling price	<u>\$ 97,500</u>

Total manufacturing cost	\$ 52,775
Markup (30%)	15,833
Selling price	<u>\$ 68,608</u>

Total manufacturing cost assigned to Job F	\$ 75,000
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Total manufacturing cost assigned to Job K	52,775
Cost of goods sold	<u><u>\$ 127,775</u></u>

305) Essay

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The first step is to calculate the estimated total overhead costs in the two departments. Molding

Estimated fixed manufacturing overhead	\$ 21,000
Estimated variable manufacturing overhead (\$1.50 per MH × 5,000 MHs)	7,500

Estimated total manufacturing overhead cost	<u>\$ 28,500</u>
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Customizing

Estimated fixed manufacturing overhead	\$ 14,000
Estimated variable manufacturing overhead (\$2.40 per MH × 5,000 MHs)	12,000

Estimated total manufacturing overhead cost	<u>\$ 26,000</u>
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The second step is to combine the estimated manufacturing overhead costs in the two departments (\$28,500 + \$26,000 = \$54,500) to calculate the *plantwide* predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$54,500
Estimated total machine hours	10,000 MHs
Predetermined overhead rate	\$5.45 per MH

Direct materials	\$ 12,700
Direct labor cost	19,100
Manufacturing overhead applied	29,430
Total manufacturing cost	<u>\$ 61,230</u>

Direct materials	\$ 6,400
Direct labor cost	7,900
Manufacturing overhead applied	25,070
Total manufacturing cost	<u>\$39,370</u>

The selling price for Job F:

Total manufacturing cost	\$ 61,230
Markup (30%)	18,369
Selling price	<u>\$ 79,599</u>

The selling price for Job K:

Total manufacturing cost	\$ 39,370
Markup (30%)	11,811
Selling price	<u>\$ 51,181</u>
Total manufacturing cost assigned to Job F	<u>\$ 61,230</u>
Total manufacturing cost assigned to Job K	<u>39,370</u>
Cost of goods sold	<u>\$100,600</u>

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306) Essay

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$308,000 + (\$2.10 per machine-hour × 70,000 machine-hours) = \$308,000 + \$147,000 = \$455,000
 Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$455,000 ÷ 70,000 machine-hours = \$6.50 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$6.50 per machine-hour × 100 machine-hours = \$650

Direct materials	\$ 555
Direct labor	2,700
Manufacturing overhead applied	650
Total cost of Job M556	\$3,905
Total cost of Job M556 (a)	\$ 3,905
Number of units (b)	50
Unit product cost (a) ÷ (b)	\$ 78.10

307) Essay

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Managerial Accounting Edition 18 by Garrison

The first step is to calculate the estimated total overhead costs in the two departments. Casting

Estimated fixed manufacturing overhead	\$ 18,000
Estimated variable manufacturing overhead (\$1.50 per MH × 4,000 MHs)	6,000
Estimated total manufacturing overhead cost	<u>\$ 24,000</u>
Finishing	
Estimated fixed manufacturing overhead	\$ 18,000
Estimated variable manufacturing overhead (\$2.30 per MH × 6,000 MHs)	13,800
Estimated total manufacturing overhead cost	<u>\$ 31,800</u>

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$24,000 + \$31,800 = \$55,800) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$55,800
Estimated total machine hours	10,000 MHs
Predetermined overhead rate	\$ 5.58 per MH

The overhead applied to Job D is calculated as follows:

Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job

$$= \$5.58 \text{ per MH} \times (2,700 \text{ MHs} + 2,400 \text{ MHs})$$

$$= \$5.58 \text{ per MH} \times (5,100 \text{ MHs})$$

$$= \$28,458$$

Job D's manufacturing cost:

Direct materials	\$ 14,300
Direct labor cost	21,700
Manufacturing overhead applied	28,458
Total manufacturing cost	<u>\$ 64,458</u>
Direct materials	\$ 6,800
Direct labor cost	8,800
Manufacturing overhead applied	27,342
Total manufacturing cost	<u>\$42,942</u>

308) Essay

Managerial Accounting Edition 18 by Garrison

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$130,000 + (\$3.00 per machine-hour × 20,000 machine-hours) = \$130,000 + \$60,000 = \$190,000
 Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$190,000 ÷ 20,000 machine-hours = \$9.50 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$9.50 per machine-hour × 30 machine-hours = \$285

Direct materials	\$ 775
Direct labor	1,170
Manufacturing overhead applied	285
Total cost of Job K789	<u>\$2,230</u>
Total cost of Job K789 (a)	<u>\$ 2,230</u>
Number of units (b)	10
Unit product cost (a) ÷ (b)	\$223.00

309) Essay

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$252,000 + (\$2.90 per machine-hour × 30,000 machine-hours) = \$252,000 + \$87,000 = \$339,000
 Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$339,000 ÷ 30,000 machine-hours = \$11.30 per machine-hour
 Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$11.30 per machine-hour × 210 machine-hours = \$2,373

Direct materials	\$ 665
Direct labor	6,720
Manufacturing overhead applied	2,373
Total cost of Job T506	<u>\$9,758</u>
Total cost of Job T506 (a)	<u>\$ 9,758</u>
Number of units (b)	70
Unit product cost (a) ÷ (b)	\$139.40
Unit product cost for Job T506	\$ 139.40
Markup (20% × \$139.40)	27.88
Selling price	<u>\$ 167.28</u>

310) Essay

Managerial Accounting Edition 18 by Garrison

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$76,000 + (\$2.10 per direct labor-hour × 10,000 direct labor-hours) = \$76,000 + \$21,000 = \$97,000
 Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$97,000 ÷ 10,000 direct labor-hours = \$9.70 per direct labor-hour
 Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$9.70 per direct labor-hour × 270 direct labor-hours = \$2,619

Direct materials	\$ 590
Direct labor	6,480
Manufacturing overhead applied	2,619
Total cost of Job X701	<u>\$9,689</u>

311) Essay

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$258,000 + (\$2.00 per direct labor-hour × 30,000 direct labor-hours) = \$258,000 + \$60,000 = \$318,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$318,000 ÷ 30,000 direct labor-hours = \$10.60 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$10.60 per direct labor-hour × 250 direct labor-hours = \$2,650

Direct materials	\$ 645
Direct labor	10,000
Manufacturing overhead applied	2,650
Total cost of Job P660	<u>\$13,295</u>
Total cost of Job P660 (a)	<u>\$ 13,295</u>
Number of units (b)	50
Unit product cost (a) ÷ (b)	\$ 265.90
Unit product cost for Job P660	\$ 265.90
Markup (20% × \$265.90)	53.18
Selling price	<u>\$ 319.08</u>

312) Essay

Managerial Accounting Edition 18 by Garrison

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$215,000 + (\$3.80 per machine-hour × 50,000 machine-hours) = \$215,000 + \$190,000 = \$405,000
 Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$405,000 ÷ 50,000 machine-hours = \$8.10 per machine-hour
 Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$8.10 per machine-hour × 240 machine-hours = \$1,944

Direct materials	\$ 735
Direct labor	8,880
Manufacturing overhead applied	1,944
Total cost of Job T496	<u>\$11,559</u>
Total cost of Job T496 (a)	<u>\$ 11,559</u>
Number of units (b)	80
Unit product cost (a) ÷ (b)	\$ 144.49

313) Essay

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$525,000 + (\$2.30 per machine-hour × 70,000 machine-hours) = \$525,000 + \$161,000 = \$686,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$686,000 ÷ 70,000 machine-hours = \$9.80 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$9.80 per machine-hour × 80 machine-hours = \$784

Direct materials	\$ 630
Direct labor	2,080
Manufacturing overhead applied	784
Total cost of Job P987	<u>\$3,494</u>
Total cost of Job P987 (a)	<u>\$ 3,494</u>
Number of units (b)	20
Unit product cost (a) ÷ (b)	\$174.70

314) Essay

Managerial Accounting Edition 18 by Garrison

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$238,000 + (\$2.70 per direct labor-hour × 70,000 direct labor-hours) = \$238,000 + \$189,000 = \$427,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$427,000 ÷ 70,000 direct labor-hours = \$6.10 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$6.10 per direct labor-hour × 200 direct labor-hours = \$1,220

Direct materials	\$ 630
Direct labor	4,800
Manufacturing overhead applied	1,220
Total cost of Job P873	<u>\$6,650</u>
Total cost of Job P873 (a)	<u>\$ 6,650</u>
Number of units (b)	50
Unit product cost (a) ÷ (b)	\$133.00

315) Essay

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$88,000 + (\$3.20 per machine-hour × 10,000 machine-hours) = \$88,000 + \$32,000 = \$120,000
 Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$120,000 ÷ 10,000 machine-hours = \$12.00 per machine-hour
 Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$12.00 per machine-hour × 150 machine-hours = \$1,800

Direct materials	\$ 580
Direct labor	3,900
Manufacturing overhead applied	1,800
Total cost of Job K418	<u>\$6,280</u>
Total cost of Job K418 (a)	<u>\$ 6,280</u>
Number of units (b)	50
Unit product cost (a) ÷ (b)	\$125.60
Unit product cost for Job K418	\$ 125.60
Markup (30% × \$125.60)	37.68
Selling price	<u>\$ 163.28</u>

316) Essay

Managerial Accounting Edition 18 by Garrison

Estimated total manufacturing overhead cost = Estimated total fixed manufacturing overhead cost + (Estimated variable overhead cost per unit of the allocation base × Estimated total amount of the allocation base) = \$91,000 + (\$2.40 per machine-hour × 10,000 machine-hours) = \$91,000 + \$24,000 = \$115,000
 Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$115,000 ÷ 10,000 machine-hours = \$11.50 per machine-hour
 Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$11.50 per machine-hour × 120 machine-hours = \$1,380

Direct materials	\$ 645
Direct labor	3,720
Manufacturing overhead applied	1,380
Total cost of Job K373	<u>\$5,745</u>
Total cost of Job K373 (a)	<u>\$ 5,745</u>
Number of units (b)	60
Unit product cost (a) ÷ (b)	\$ 95.75

317) Essay

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Managerial Accounting Edition 18 by Garrison

Molding Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$18,200
Estimated variable manufacturing overhead (\$1.50 per MH × 7,000 MHs)	10,500
Estimated total manufacturing overhead cost (a)	<u>\$28,700</u>
Estimated total machine-hours (b)	7,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$4.10 per MH

Customizing Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$9,600
Estimated variable manufacturing overhead (\$3.00 per MH × 2,400 MHs)	7,200
Estimated total manufacturing overhead cost (a)	<u>\$16,800</u>
Estimated total machine-hours (b)	2,400 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$7.00 per MH

Manufacturing overhead applied to Job C:

Molding (\$4.10 per MH × 2,500 MHs)	\$ 10,250
Customizing (\$7.00 per MH × 1,400 MHs)	9,800
Total manufacturing overhead applied	<u><u>\$ 20,050</u></u>

Manufacturing overhead applied to Job M:

Molding (\$4.10 per MH × 4,500 MHs)	\$ 18,450
Customizing (\$7.00 per MH × 1,000 MHs)	7,000
Total manufacturing overhead applied	<u><u>\$ 25,450</u></u>

The selling price for Job C would be calculated as follows:

Direct materials	\$ 15,300
Direct labor cost	22,100
Manufacturing overhead applied	20,050
Total manufacturing cost	<u>\$ 57,450</u>
Markup (20%)	11,490
Selling price	<u><u>\$ 68,940</u></u>

The selling price for Job M would be calculated as follows:

Direct materials	\$ 9,000
Direct labor cost	9,100
Manufacturing overhead applied	25,450
Total manufacturing cost	<u>\$43,550</u>
Markup (20%)	<u>8,710</u>

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Selling price

\$52,260

318) Essay

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Molding Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$15,900
Estimated variable manufacturing overhead (\$1.20 per MH × 3,000 MHs)	3,600
Estimated total manufacturing overhead cost (a)	<u>\$19,500</u>
Estimated total machine-hours (b)	3,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$6.50 per MH

Customizing Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$4,200
Estimated variable manufacturing overhead (\$2.40 per MH × 2,000 MHs)	4,800
Estimated total manufacturing overhead cost (a)	<u>\$9,000</u>
Estimated total machine-hours (b)	2,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$4.50 per MH

Manufacturing overhead applied to Job C:

Molding (\$6.50 per MH × 2,000 MHs)	\$ 13,000
Customizing (\$4.50 per MH × 800 MHs)	3,600
Total manufacturing overhead applied	<u>\$ 16,600</u>

Manufacturing overhead applied to Job M:

Molding (\$6.50 per MH × 1,000 MHs)	\$ 6,500
Customizing (\$4.50 per MH × 1,200 MHs)	5,400
Total manufacturing overhead applied	<u>\$11,900</u>

The selling price for Job C would be calculated as follows:

Direct materials	\$ 15,600
Direct labor cost	25,100
Manufacturing overhead applied	16,600
Total manufacturing cost	<u>\$ 57,300</u>
Markup (20%)	11,460
Selling price	<u>\$ 68,760</u>

The selling price for Job M would be calculated as follows:

Direct materials	\$ 8,600
Direct labor cost	8,300
Manufacturing overhead applied	11,900
Total manufacturing cost	<u>\$28,800</u>
Markup (20%)	5,760

Managerial Accounting Edition 18 by Garrison

Selling price

\$34,560

319) Essay

Forming Department:

Forming Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)

= \$102,400 + (\$1.90 per machine-hour × 16,000 machine-hours)

= \$102,400 + \$30,400 = \$132,800

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the = \$132,800 ÷ 16,000 machine-hours = \$8.30 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$8.30 per machine-hour × 50 machine-hours = \$415

Assembly Department:

Assembly Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

= \$66,000 + (\$3.80 per direct labor-hour × 6,000 direct labor-hours)

= \$66,000 + \$22,800 = \$88,800

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the = \$88,800 ÷ 6,000 direct labor-hours = \$14.80 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$14.80 per direct labor-hour × 40 direct labor-hours = \$592 Overhead applied to Job A950

Forming Department

\$ 415

Assembly Department

592

Total

\$1,007

Forming

Assembly

Total

Direct materials

\$ 665

\$ 415

\$1,080

Direct labor

\$ 520

\$1,040

1,560

Manufacturing overhead applied

\$ 415

\$ 592

1,007

Total cost of Job A950

\$3,647

Total cost of Job A950

\$ 3,647.00

Markup (\$3,647.00 × 30%)

1,094.10

Selling price

\$ 4,741.10

320) Essay

Managerial Accounting Edition 18 by Garrison

Milling Department: Milling Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)

$$= \$91,800 + (\$2.00 \text{ per machine-hour} \times 17,000 \text{ machine-hours})$$

$$= \$91,800 + \$34,000 = \$125,800$$

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the = $\$125,800 \div 17,000 \text{ machine-hours} = \$7.40 \text{ per machine-hour}$

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = $\$7.40 \text{ per machine-hour} \times 70 \text{ machine-hours} = \518

Finishing Department:

Finishing Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

$$= \$64,200 + (\$3.40 \text{ per direct labor-hour} \times 6,000 \text{ direct labor-hours})$$

$$= \$64,200 + \$20,400 = \$84,600$$

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the = $\$84,600 \div 6,000 \text{ direct labor-hours} = \$14.10 \text{ per direct labor-hour}$

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = $\$14.10 \text{ per direct labor-hour} \times 40 \text{ direct labor-hours} = \564

Overhead applied to Job M565

Milling Department \$ 518

Finishing Department 564

Total \$1,082

	Milling	Finishing	Total
Direct materials	\$ 750	\$ 360	\$ 1,110
Direct labor	\$ 340	\$1,360	1,700
Manufacturing overhead applied	\$ 518	\$ 564	1,082
Total cost of Job M565			<u>\$ 3,892</u>

Total cost of Job M565 \$ 3,892.00

Markup (\$3,892.00 × 20%) 778.40

Selling price \$ 4,670.40

321) Essay

Managerial Accounting Edition 18 by Garrison

Department:

Forming Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)

= \$91,200 + (\$2.10 per machine-hour × 16,000 machine-hours)

= \$91,200 + \$33,600 = \$124,800

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the = \$124,800 ÷ 16,000 machine-hours = \$7.80 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$7.80 per machine-hour × 50 machine-hours = \$390

Customizing Department:

Customizing Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

= \$99,000 + (\$3.10 per direct labor-hour × 9,000 direct labor-hours)

= \$99,000 + \$27,900 = \$126,900

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the = \$126,900 ÷ 9,000 direct labor-hours = \$14.10 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$14.10 per direct labor-hour × 50 direct labor-hours = \$705

Overhead applied to Job M109

Forming Department

TBEXAM.COM \$ 390

Customizing Department

705

Total

\$1,095

	Forming	Customizing	Total
Direct materials	\$ 915	\$ 355	\$ 1,270
Direct labor	\$ 620	\$1,550	2,170
Manufacturing overhead applied	\$ 390	\$ 705	1,095
Total cost of Job M109			<u>\$ 4,535</u>

322) Essay

Managerial Accounting Edition 18 by Garrison

Casting Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department) = \$119,000 + (\$2.10 per machine-hour × 17,000 machine-hours)

$$= \$119,000 + \$35,700 = \$154,700$$

Assembly Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department) = \$51,000 + (\$3.10 per direct labor-hour × 6,000 direct labor-hours)

$$= \$51,000 + \$18,600 = \$69,600$$

Casting Department: Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the = \$154,700 ÷ 17,000 machine-hours = \$9.10 per machine-hour

Assembly Department: Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the = \$69,600 ÷ 6,000 direct labor-hours = \$11.60 per direct labor-hour

Casting Department: Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$9.10 per machine-hour × 50 machine-hours = \$455
 Assembly Department: Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$11.60 per direct labor-hour × 50 direct labor-hours = \$580

Overhead applied to Job A182

Casting Department

\$ 455

Assembly Department

580

Total

\$1,035

Direct materials

\$ 895

\$ 365

\$ 1,260

Direct labor

\$ 240

\$1,200

1,440

Manufacturing overhead applied

\$ 455

\$ 580

1,035

Total cost of Job A182

\$ 3,735

Total cost of Job A182

\$ 3,735.00

Markup (\$3,735.00 × 20%)

747.00

Selling price

\$ 4,482.00

323) Essay

Managerial Accounting Edition 18 by Garrison

The first step is to calculate the estimated total overhead costs in the two departments. Forming

Estimated fixed manufacturing overhead	\$ 17,500
Estimated variable manufacturing overhead (\$1.50 per MH × 5,000 MHs)	7,500

Estimated total manufacturing overhead cost	<u>\$ 25,000</u>
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Customizing

Estimated fixed manufacturing overhead	\$ 17,000
Estimated variable manufacturing overhead (\$3.00 per MH × 5,000 MHs)	15,000

Estimated total manufacturing overhead cost	<u>\$ 32,000</u>
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The second step is to combine the estimated manufacturing overhead costs in the two departments (\$25,000 + \$32,000 = \$57,000) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$57,000
Estimated total machine hours	10,000 MHs
Predetermined overhead rate	\$ 5.70 per MH

Direct materials	\$ 8,200
Direct labor cost	8,200
Manufacturing overhead applied	42,750
Total manufacturing cost	<u>\$59,150</u>

The selling price for Job L:

Total manufacturing cost	\$ 59,150
Markup (20%)	11,830
Selling price	<u>\$70,980</u>

Forming Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$ 17,500
Estimated variable manufacturing overhead (\$1.50 per MH × 5,000 MHs)	7,500
Estimated total manufacturing overhead cost (a)	<u>\$25,000</u>

Estimated total machine-hours (b)	5,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 5.00 per MH

Customizing Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$ 17,000
Estimated variable manufacturing overhead (\$3.00 per MH × 5,000 MHs)	15,000

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Estimated total manufacturing overhead cost (a)	\$32,000
Estimated total machine-hours (b)	5,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 6.40 per MH

Manufacturing overhead applied to Job L:

Forming (\$5.00 per MH × 3,750 MHs)	\$ 18,750
Customizing (\$6.40 per MH × 3,750 MHs)	24,000
Total manufacturing overhead applied	\$ 42,750

The selling price for Job L would be calculated as follows:

Direct materials	\$ 8,200
Direct labor cost	8,200
Manufacturing overhead applied	42,750
Total manufacturing cost	\$59,150
Markup (20%)	11,830
Selling price	\$70,980

324) Essay

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The first step is to calculate the estimated total overhead costs in the two departments. Forming

Estimated fixed manufacturing overhead	\$ 50,400
Estimated variable manufacturing overhead (\$1.70 per MH × 9,000 MHs)	15,300
Estimated total manufacturing overhead cost	<u>\$ 65,700</u>
Customizing	
Estimated fixed manufacturing overhead	\$ 2,600
Estimated variable manufacturing overhead (\$2.10 per MH × 1,000 MHs)	2,100
Estimated total manufacturing overhead cost	<u>\$ 4,700</u>

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$65,700 + \$4,700 = \$70,400) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$ 70,400
Estimated total machine hours	10,000 MHs
Predetermined overhead rate	\$7.04 per MH

Direct materials	\$6,900
Direct labor cost	8,500
Manufacturing overhead applied	24,640
Total manufacturing cost	<u>\$40,040</u>

The selling price for Job L:

Total manufacturing cost	\$ 40,040
Markup (80%)	32,032
Selling price	<u>\$ 72,072</u>

Forming Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$ 50,400
Estimated variable manufacturing overhead (\$1.70 per MH × 9,000 MHs)	15,300
Estimated total manufacturing overhead cost (a)	<u>\$ 65,700</u>
Estimated total machine-hours (b)	9,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$7.30 per MH
Customizing Department predetermined overhead rate:	
Estimated fixed manufacturing overhead	\$2,600
Estimated variable manufacturing overhead (\$2.10 per MH × 1,000 MHs)	2,100

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Estimated total manufacturing overhead cost (a)	\$4,700
Estimated total machine-hours (b)	1,000 MHs

Departmental predetermined overhead rate (a) ÷ (b) \$ 4.70 per MH

Manufacturing overhead applied to Job L:

Forming (\$7.30 per MH × 2,900 MHs)	\$ 21,170
Customizing (\$4.70 per MH × 600 MHs)	2,820
Total manufacturing overhead applied	<u>\$ 23,990</u>

The selling price for Job L would be calculated as follows:

Direct materials	\$ 6,900
Direct labor cost	8,500
Manufacturing overhead applied	23,990
Total manufacturing cost	<u>\$ 39,390</u>
Markup (80%)	31,512
Selling price	<u>\$ 70,902</u>

325) Essay

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Machining Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$ 4,200
Estimated variable manufacturing overhead (\$1.90 per MH × 1,000 MHs)	1,900
Estimated total manufacturing overhead cost (a)	<u>\$ 6,100</u>

Estimated total machine-hours (b)	1,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$6.10 per MH

Finishing Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$ 8,800
Estimated variable manufacturing overhead (\$2.90 per MH × 4,000 MHs)	11,600
Estimated total manufacturing overhead cost (a)	<u>\$ 20,400</u>

Estimated total machine-hours (b)	4,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$5.10 per MH

Manufacturing overhead applied to Job E:

Machining (\$6.10 per MH × 700 MHs)	\$ 4,270
Finishing (\$5.10 per MH × 1,600 MHs)	8,160
Total manufacturing overhead applied	<u>\$ 12,430</u>

Manufacturing overhead applied to Job G:

Machining (\$6.10 per MH × 300 MHs)	\$ 1,830
Finishing (\$5.10 per MH × 2,400 MHs)	12,240
Total manufacturing overhead applied	<u>\$ 14,070</u>

The selling price for Job E would be calculated as follows:

Direct materials	\$ 11,800
Direct labor cost	19,200
Manufacturing overhead applied	12,430
Total manufacturing cost	<u>\$ 43,430</u>
Markup (80%)	34,744
Selling price	<u>\$ 78,174</u>

The selling price for Job G would be calculated as follows:

Direct materials	\$ 8,000
Direct labor cost	6,700
Manufacturing overhead applied	<u>14,070</u>

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Total manufacturing cost	\$28,770
Markup (80%)	23,016
Selling price	<u>\$51,786</u>
Total manufacturing cost Job E	<u>\$ 43,430</u>
Total manufacturing cost Job G	28,770
Cost of goods sold	<u><u>\$ 72,200</u></u>

326) Essay

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Casting Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department) = \$110,000 + (\$1.60 per machine-hour × 20,000 machine-hours)

$$= \$110,000 + \$32,000 = \$142,000$$

Assembly Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department) = \$65,400 + (\$4.50 per direct labor-hour × 6,000 direct labor-hours)

$$= \$65,400 + \$27,000 = \$92,400$$

Casting Department: Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the = \$142,000 ÷ 20,000 machine-hours = \$7.10 per machine-hour

Assembly Department: Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the = \$92,400 ÷ 6,000 direct labor-hours = \$15.40 per direct labor-hour

Casting Department: Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$7.10 per machine-hour × 60 machine-hours = \$426

Assembly Department: Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$15.40 per direct labor-hour × 40 direct labor-hours = \$616

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	Casting	Assembly	Total
Direct materials	\$ 950	\$ 305	\$ 1,255
Direct labor	\$ 460	\$ 920	1,380
Manufacturing overhead applied	\$ 426	\$ 616	1,042
Total cost of Job K246			<u>\$ 3,677</u>
Total cost of Job K246	\$ 3,677.00		
Markup (\$3,677.00 × 40%)	1,470.80		
Selling price	<u>\$ 5,147.80</u>		

327) Essay

Managerial Accounting Edition 18 by Garrison

The first step is to calculate the estimated total overhead costs in the two departments. Forming

Estimated fixed manufacturing overhead	\$ 36,800
Estimated variable manufacturing overhead (\$1.60 per MH × 8,000 MHs)	12,800
Estimated total manufacturing overhead cost	<u>\$ 49,600</u>
Customizing	
Estimated fixed manufacturing overhead	\$ 4,800
Estimated variable manufacturing overhead (\$2.90 per MH × 2,000 MHs)	5,800
Estimated total manufacturing overhead cost	<u>\$10,600</u>

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$49,600 + \$10,600 = \$60,200) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$60,200
Estimated total machine hours	10,000 MHs
Predetermined overhead rate	\$ 6.02 per MH

The overhead applied to Job D is calculated as follows:

Overhead applied to a particular job = Predetermined overhead rate × Machine-hours incurred by the job

$$\begin{aligned}
 &= \$6.02 \text{ per MH} \times (5,400 \text{ MHs} + 800 \text{ MHs}) \\
 &= \$6.02 \text{ per MH} \times (6,200 \text{ MHs}) \\
 &= \$37,324
 \end{aligned}$$

The selling price for Job D:

Direct materials	\$ 15,600
Direct labor cost	19,100
Manufacturing overhead applied	37,324
Total manufacturing cost	<u>\$ 72,024</u>
Markup (50%)	36,012
Selling price	<u>\$108,036</u>

Direct materials	\$ 6,900
Direct labor cost	8,700
Manufacturing overhead applied	22,876
Total manufacturing cost	<u>\$38,476</u>

The selling price for Job K:

Total manufacturing cost	\$ 38,476
Markup (50%)	19,238
Selling price	<u>\$ 57,714</u>

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Forming Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$36,800
Estimated variable manufacturing overhead (\$1.60 per MH × 8,000 MHs)	12,800
Estimated total manufacturing overhead cost (a)	<u>\$49,600</u>
Estimated total machine-hours (b)	8,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 6.20 per MH

Customizing Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$4,800
Estimated variable manufacturing overhead (\$2.90 per MH × 2,000 MHs)	5,800
Estimated total manufacturing overhead cost (a)	<u>\$10,600</u>
Estimated total machine-hours (b)	2,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 5.30 per MH

Manufacturing overhead applied to Job D:

Forming (\$6.20 per MH × 5,400 MHs)	\$ 33,480
Customizing (\$5.30 per MH × 800 MHs)	4,240
Total manufacturing overhead applied	<u><u>\$ 37,720</u></u>

The selling price for Job D would be calculated as follows:

Direct materials	\$15,600
Direct labor cost	19,100
Manufacturing overhead applied	37,720
Total manufacturing cost	\$72,420
Markup (50%)	36,210
Selling price	<u><u>\$108,630</u></u>

Manufacturing overhead applied to Job K:

Forming (\$6.20 per MH × 2,600 MHs)	\$ 16,120
Customizing (\$5.30 per MH × 1,200 MHs)	6,360
Total manufacturing overhead applied	<u><u>\$ 22,480</u></u>

The selling price for Job K would be calculated as follows:

Direct materials	\$ 6,900
Direct labor cost	8,700
Manufacturing overhead applied	22,480
Total manufacturing cost	<u>\$38,080</u>
Markup (50%)	<u>19,040</u>

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Selling price

\$57,120

328) Essay

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The first step is to calculate the estimated total overhead costs in the two departments.

Molding

Estimated fixed manufacturing overhead	\$ 8,800
Estimated variable manufacturing overhead (\$1.50 per MH × 2,000 MHs)	3,000
Estimated total manufacturing overhead cost	<u>\$ 11,800</u>

Assembly

Estimated fixed manufacturing overhead	\$ 39,200
Estimated variable manufacturing overhead (\$3.00 per MH × 8,000 MHs)	24,000
Estimated total manufacturing overhead cost	<u>\$ 63,200</u>

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$11,800 + \$63,200 = \$75,000) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$75,000
Estimated total machine hours	10,000 MHs
Predetermined overhead rate	\$ 7.50 per MH

Direct materials	\$ 13,900
Direct labor cost	21,000
Manufacturing overhead applied	18,750
Total manufacturing cost	<u>\$ 53,650</u>

Total manufacturing cost	\$ 53,650
Markup (20%)	10,730
Selling price	<u>\$64,380</u>

Estimated fixed manufacturing overhead	\$8,800
Estimated variable manufacturing overhead (\$1.50 per MH × 2,000 MHs)	3,000
Estimated total manufacturing overhead cost (a)	<u>\$11,800</u>
Estimated total machine-hours (b)	2,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 5.90 per MH
Estimated fixed manufacturing overhead	\$39,200

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Estimated variable manufacturing overhead (\$3.00 per MH × 8,000 MHs)	24,000	
Estimated total manufacturing overhead cost (a)		\$63,200
Estimated total machine-hours (b)	8,000 MHs	
Departmental predetermined overhead rate (a) ÷ (b)	\$ 7.90 per MH	
Molding (\$5.90 per MH × 1,250 MHs)		\$ 7,375
Assembly (\$7.90 per MH × 1,250 MHs)		9,875
Total manufacturing overhead applied		<u>\$ 17,250</u>
Direct materials	\$ 13,900	
Direct labor cost	21,000	
Manufacturing overhead applied	17,250	
Total manufacturing cost		<u>\$ 52,150</u>
Markup (20%)		10,430
Selling price		<u>\$62,580</u>

329) Essay

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The first step is to calculate the estimated total overhead costs in the two departments.

Molding

Estimated fixed manufacturing overhead	\$ 29,000
Estimated variable manufacturing overhead (\$1.20 per MH × 5,000 MHs)	6,000
Estimated total manufacturing overhead cost	<u>\$ 35,000</u>

Assembly

Estimated fixed manufacturing overhead	\$ 13,500
Estimated variable manufacturing overhead (\$2.30 per MH × 5,000 MHs)	11,500
Estimated total manufacturing overhead cost	<u>\$ 25,000</u>

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$35,000 + \$25,000 = \$60,000) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$60,000
Estimated total machine hours	10,000 MHs
Predetermined overhead rate	\$ 6.00 per MH

Direct materials	\$ 14,300
Direct labor cost	22,800
Manufacturing overhead applied	32,400
Total manufacturing cost	<u>\$ 69,500</u>

Total manufacturing cost	\$ 69,500
Markup (60%)	41,700
Selling price	<u>\$111,200</u>

Estimated fixed manufacturing overhead	\$29,000
Estimated variable manufacturing overhead (\$1.20 per MH × 5,000 MHs)	6,000
Estimated total manufacturing overhead cost (a)	<u>\$35,000</u>
Estimated total machine-hours (b)	5,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 7.00 per MH
Estimated fixed manufacturing overhead	\$13,500

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Estimated variable manufacturing overhead (\$2.30 per MH × 5,000 MHs)	11,500	
Estimated total manufacturing overhead cost (a)		<u>\$25,000</u>
Estimated total machine-hours (b)	5,000 MHs	
Departmental predetermined overhead rate (a) ÷ (b)	\$ 5.00 per MH	
Molding (\$7.00 per MH × 3,400 MHs)		\$ 23,800
Assembly (\$5.00 per MH × 2,000 MHs)		<u>10,000</u>
Total manufacturing overhead applied		<u><u>\$ 33,800</u></u>
Direct materials	\$ 14,300	
Direct labor cost	22,800	
Manufacturing overhead applied	33,800	
Total manufacturing cost		<u>\$ 70,900</u>
Markup (60%)	42,540	
Selling price		<u><u>\$113,440</u></u>

330) Essay

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Managerial Accounting Edition 18 by Garrison

Machining Department:

Machining Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)

= \$65,800 + (\$1.00 per machine-hour × 14,000 machine-hours)

= \$65,800 + \$14,000 = \$79,800

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the = \$79,800 ÷ 14,000 machine-hours = \$5.70 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$5.70 per machine-hour × 60 machine-hours = \$342

Customizing Department:

Customizing Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

= \$90,000 + (\$2.00 per direct labor-hour × 5,000 direct labor-hours)

= \$90,000 + \$10,000 = \$100,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the = \$100,000 ÷ 5,000 direct labor-hours = \$20.00 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$20.00 per direct labor-hour × 60 direct labor-hours = \$1,200

Overhead applied to Job K369

Machining Department	TBEXAM.COM	\$ 342
Customizing Department		1,200
Total		<u>\$ 1,542</u>

331) Essay

Managerial Accounting Edition 18 by Garrison

Machining Department:

Machining Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)

= \$98,800 + (\$2.10 per machine-hour × 19,000 machine-hours)

= \$98,800 + \$39,900 = \$138,700

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the = \$138,700 ÷ 19,000 machine-hours = \$7.30 per machine-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$7.30 per machine-hour × 90 machine-hours = \$657

Customizing Department:

Customizing Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

= \$84,600 + (\$3.60 per direct labor-hour × 9,000 direct labor-hours)

= \$84,600 + \$32,400 = \$117,000

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the = \$117,000 ÷ 9,000 direct labor-hours = \$13.00 per direct labor-hour

Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$13.00 per direct labor-hour × 50 direct labor-hours = \$650

Overhead applied to Job K369

Machining Department	TBEXAM.COM	\$ 657
Customizing Department		650
Total		<u>\$1,307</u>

332) Essay

Managerial Accounting Edition 18 by Garrison

The first step is to calculate the estimated total overhead costs in the two departments.

Machining

Estimated fixed manufacturing overhead	\$ 15,600
Estimated variable manufacturing overhead (\$1.50 per MH × 6,000 MHs)	9,000
Estimated total manufacturing overhead cost	<u>\$ 24,600</u>

Finishing

Estimated fixed manufacturing overhead	\$ 21,600
Estimated variable manufacturing overhead (\$5.00 per MH × 4,000 MHs)	20,000
Estimated total manufacturing overhead cost	<u>\$ 41,600</u>

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$24,600 + \$41,600 = \$66,200) to calculate the plantwide predetermined overhead rate as follows:

Estimated total manufacturing overhead cost	\$66,200
Estimated total machine hours	10,000 MHs

Predetermined overhead rate **TBEXAM.COM** \$ 6.62 per MH

Estimated fixed manufacturing overhead	\$15,600
Estimated variable manufacturing overhead (\$1.50 per MH × 6,000 MHs)	9,000
Estimated total manufacturing overhead cost (a)	<u>\$24,600</u>
Estimated total machine-hours (b)	6,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 4.10 per MH

Estimated fixed manufacturing overhead	\$21,600
Estimated variable manufacturing overhead (\$5.00 per MH × 4,000 MHs)	20,000
Estimated total manufacturing overhead cost (a)	<u>\$41,600</u>
Estimated total machine-hours (b)	4,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 10.40 per MH

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Machining (\$4.10 per MH × 4,000 MHs)	\$ 16,400
Finishing (\$10.40 per MH × 500 MHs)	5,200
Total manufacturing overhead applied	<u>\$ 21,600</u>

Machining (\$4.10 per MH × 2,000 MHs)	\$ 8,200
Finishing (\$10.40 per MH × 3,500 MHs)	36,400
Total manufacturing overhead applied	<u>\$44,600</u>

333) Essay

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Managerial Accounting Edition 18 by Garrison

The first step is to calculate the estimated total overhead costs in the two departments.

Machining

Estimated fixed manufacturing overhead	\$ 20,000
Estimated variable manufacturing overhead (\$1.40 per MH × 4,000 MHs)	5,600
Estimated total manufacturing overhead cost	<u>\$ 25,600</u>

Finishing

Estimated fixed manufacturing overhead	\$ 2,100
Estimated variable manufacturing overhead (\$2.80 per MH × 1,000 MHs)	2,800
Estimated total manufacturing overhead cost	<u>\$ 4,900</u>

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$25,600 + \$4,900 = \$30,500) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$30,500
Estimated total machine hours	5,000 MHs
Predetermined overhead rate	\$ 6.10 per MH

Estimated fixed manufacturing overhead	\$20,000
Estimated variable manufacturing overhead (\$1.40 per MH × 4,000 MHs)	5,600
Estimated total manufacturing overhead cost (a)	<u>\$25,600</u>

Estimated total machine-hours (b)	4,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 6.40 per MH

Estimated fixed manufacturing overhead	\$2,100
Estimated variable manufacturing overhead (\$2.80 per MH × 1,000 MHs)	2,800
Estimated total manufacturing overhead cost (a)	<u>\$4,900</u>

Estimated total machine-hours (b)	1,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 4.90 per MH

Machining (\$6.40 per MH × 2,700 MHs)	\$ 17,280
Finishing (\$4.90 per MH × 400 MHs)	<u>1,960</u>

Managerial Accounting Edition 18 by Garrison

Total manufacturing overhead applied	\$ 19,240
Machining (\$6.40 per MH × 1,300 MHs)	\$ 8,320
Finishing (\$4.90 per MH × 600 MHs)	2,940
Total manufacturing overhead applied	\$11,260

334) Essay

Assembly Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

$$= \$76,300 + (\$3.10 \text{ per direct labor-hour} \times 7,000 \text{ direct labor-hours})$$

$$= \$76,300 + \$21,700 = \$98,000$$

Forming Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department)

$$= \$100,800 + (\$1.70 \text{ per machine-hour} \times 16,000 \text{ machine-hours})$$

$$= \$100,800 + \$27,200 = \$128,000$$

Forming Department: Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the = $\$128,000 \div 16,000 \text{ machine-hours} = \$8.00 \text{ per machine-hour}$

Forming Department: Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = $\$8.00 \text{ per machine-hour} \times 50 \text{ machine-hours} = \400

Assembly Department: Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the = $\$98,000 \div 7,000 \text{ direct labor-hours} = \$14.00 \text{ per direct labor-hour}$

Assembly Department: Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = $\$14.00 \text{ per direct labor-hour} \times 40 \text{ direct labor-hours} = \560

Overhead applied to Job X560

Forming Department	\$ 400
Assembly Department	560
Total	\$ 960

335) Essay

Managerial Accounting Edition 18 by Garrison

The first step is to calculate the estimated total overhead costs in the two departments.

Molding

Estimated fixed manufacturing overhead	\$ 5,100
Estimated variable manufacturing overhead (\$1.50 per MH × 1,000 MHs)	1,500
Estimated total manufacturing overhead cost	<u>\$ 6,600</u>

Customizing

Estimated fixed manufacturing overhead	\$ 23,400
Estimated variable manufacturing overhead (\$2.50 per MH × 9,000 MHs)	22,500
Estimated total manufacturing overhead cost	<u>\$ 45,900</u>

The second step is to combine the estimated manufacturing overhead costs in the two departments (\$6,600 + \$45,900 = \$52,500) to calculate the plantwide predetermined overhead rate as follow:

Estimated total manufacturing overhead cost	\$52,500
Estimated total machine hours	10,000 MHs
Predetermined overhead rate	\$ 5.25 per MH

Estimated fixed manufacturing overhead	\$5,100
Estimated variable manufacturing overhead (\$1.50 per MH × 1,000 MHs)	1,500
Estimated total manufacturing overhead cost (a)	<u>\$6,600</u>

Estimated total machine-hours (b)	1,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 6.60 per MH

Customizing Department predetermined overhead rate:

Estimated fixed manufacturing overhead	\$23,400
Estimated variable manufacturing overhead (\$2.50 per MH × 9,000 MHs)	22,500
Estimated total manufacturing overhead cost (a)	<u>\$45,900</u>

Estimated total machine-hours (b)	9,000 MHs
Departmental predetermined overhead rate (a) ÷ (b)	\$ 5.10 per MH

Manufacturing overhead applied to Job D:

Molding (\$6.60 per MH × 700 MHs)	\$ 4,620
Customizing (\$5.10 per MH × 3,600 MHs)	18,360
Total manufacturing overhead applied	<u>\$22,980</u>

Managerial Accounting Edition 18 by Garrison

Molding (\$6.60 per MH × 300 MHs)	\$ 1,980
Customizing (\$5.10 per MH × 5,400 MHs)	27,540
Total manufacturing overhead applied	\$29,520

336) Essay

- n. Casting Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department) = \$124,100 + (\$2.30 per machine-hour × 17,000 machine-hours) = \$124,100 + \$39,100 = \$163,200
- o. Casting Department: Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the = \$163,200 ÷ 17,000 machine-hours = \$9.60 per machine-hour
- p. Casting Department: Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$9.60 per machine-hour × 80 machine-hours = \$768

337) Essay

- q. Finishing Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department) = \$57,600 + (\$4.00 per direct labor-hour × 6,000 direct labor-hours) = \$57,600 + \$24,000 = \$81,600
- r. Finishing Department: Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the = \$81,600 ÷ 6,000 direct labor-hours = \$13.60 per direct labor-hour
- s. Finishing Department: Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$13.60 per direct labor-hour × 60 direct labor-hours = \$816

338) Essay

Managerial Accounting Edition 18 by Garrison

Forming Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per machine-hour × Total machine-hours in the department) = \$119,700 + (\$2.00 per machine-hour × 19,000 machine-hours)

$$= \$119,700 + \$38,000 = \$157,700$$

Customizing Department overhead cost = Fixed manufacturing overhead cost + (Variable overhead cost per direct labor-hour × Total direct labor-hours in the department)

$$= \$67,200 + (\$4.20 \text{ per direct labor-hour} \times 8,000 \text{ direct labor-hours})$$

$$= \$67,200 + \$33,600 = \$100,800$$

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the = \$100,800 ÷ 8,000 direct labor-hours = \$12.60 per direct labor-hour

Forming Department: Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the = \$157,700 ÷ 19,000 machine-hours = \$8.30 per machine-hour

Forming Department: Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$8.30 per machine-hour × 50 machine-hours = \$415

Customizing Department: Overhead applied to a particular job = Predetermined overhead rate × Amount of the allocation base incurred by the job = \$12.60 per direct labor-hour × 50 direct labor-hours = \$630

Overhead applied to Job K973

Forming Department

\$ 415

Customizing Department

630

Total

\$1,045

339) Essay

Predetermined overhead rate (a)

\$ 14.30 per machine-hour

Actual activity level (b)

36,700 machine-hours

Manufacturing overhead applied (a) × (b)

\$524,810

340) Essay

Predetermined overhead rate (a)

\$ 23.40 per direct labor-hour

Actual activity level (b)

27,100 direct labor-hours

Manufacturing overhead applied (a) × (b)

\$634,140

341) Essay

Managerial Accounting Edition 18 by Garrison

Cost Summary

Direct materials	\$ 48,870
Direct labor (\$13 per DLH × 405 DLHs)	5,265
Manufacturing overhead (\$11 per MH × 486 MHs)	5,346
Total product cost	\$ 59,481
Unit product cost	\$ 22.03

342) Essay

Cost Summary

Direct materials	\$ 59,400
Direct labor (\$15 per DLH × 1,224 DLHs)	18,360
Manufacturing overhead (\$35 per DLH × 1,224 DLHs)	42,840
Total product cost	\$ 120,600
Unit product cost	\$ 33.50

343) Essay

Total manufacturing cost for the job (a)	\$ 3,201,600
Total number of units produced (b)	48,000
Unit product cost (a) ÷ (b)	\$ 66.70
Units sold (a)	21,000
Unit product cost (b)	\$ 66.70
Cost of goods sold (a) × (b)	\$ 1,400,700

344) Essay

Total manufacturing cost for the job (a)	\$ 1,054,000
Total number of units produced (b)	20,000
Unit product cost (a) ÷ (b)	\$ 52.70
Units sold (a)	7,000
Unit product cost (b)	\$ 52.70
Cost of goods sold (a) × (b)	\$ 368,900

345) Essay

Managerial Accounting Edition 18 by Garrison

Total manufacturing cost for the job (a)	\$ 1,054,000
Total number of units produced (b)	20,000
Unit product cost (a) ÷ (b)	\$ 52.70
Units in finished goods inventory (a)	13,000
Unit product cost (b)	\$ 52.70
Finished goods inventory (a) × (b)	\$ 685,100

346) Essay

Beginning balance	\$ 29,400
Direct materials	498,400
Direct labor cost	103,600
Manufacturing overhead cost applied	186,200
Total manufacturing cost for the job	<u>\$ 817,600</u>
Total number of units produced	14,000
Unit product cost	\$ 58.40
Units sold (a)	3,000
Unit product cost (b)	\$ 58.40
Cost of goods sold (a) × (b)	\$ 175,200

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347) Essay

Beginning balance	\$ 616,800
Direct materials	608,400
Direct labor cost	213,600
Manufacturing overhead cost applied	296,200
Total manufacturing cost for the job	<u>\$ 1,735,000</u>
Total number of units produced	25,000
Unit product cost	\$ 69.40
Units in finished goods inventory (a)	11,000
Unit product cost (b)	\$ 69.40
Finished goods inventory (a) × (b)	\$ 763,400

348) Essay

Managerial Accounting Edition 18 by Garrison

Beginning balance	\$ 29,400
Direct materials	498,400
Direct labor cost	103,600
Manufacturing overhead cost applied	186,200
Total manufacturing cost for the job	<u>\$ 817,600</u>
Total number of units produced	<u>14,000</u>
Unit product cost	\$ 58.40
Units in finished goods inventory (a)	11,000
Unit product cost (b)	\$ 58.40
Finished goods inventory (a) × (b)	\$ 642,400

349) Essay

Total manufacturing cost for the job (a)	\$ 1,180,300
Total number of units produced (b)	21,200
Unit product cost (a) ÷ (b)	\$ 55.67
Cost of goods sold (4,200 units × \$55.67 per unit)	\$ 233,814

350) Essay

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Total manufacturing cost for the job (a)	\$ 1,179,200
Total number of units produced (b)	22,000
Unit product cost (a) ÷ (b)	\$ 53.60
Cost of goods sold (4,000 units × \$53.60 per unit)	\$ 214,400

351) Essay

Total manufacturing cost for the job (a)	\$ 1,181,500
Total number of units produced (b)	21,700
Unit product cost (a) ÷ (b)	\$ 54.45
Finished goods inventory (17,400 units × \$54.45 per unit)	\$ 947,430

352) Essay

Managerial Accounting Edition 18 by Garrison

Total manufacturing cost for the job (a)	\$ 1,179,200
Total number of units produced (b)	22,000
Unit product cost (a) ÷ (b)	\$ 53.60
Finished goods inventory (18,000 units × \$53.60 per unit)	\$ 964,800

353) Essay

Total manufacturing cost for the job (a)	\$ 1,262,700
Total number of units produced (b)	20,700
Unit product cost (a) ÷ (b)	\$ 61.00
Cost of goods sold (15,700 units × \$61.00 per unit)	\$ 957,700

354) Essay

Total manufacturing cost for the job (a)	\$ 1,126,700
Total number of units produced (b)	19,000
Unit product cost (a) ÷ (b)	\$ 59.30
Cost of goods sold (14,000 units × \$59.30 per unit)	\$ 830,200

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355) Essay

Total manufacturing cost for the job (a)	\$ 1,136,500
Total number of units produced (b)	19,500
Unit product cost (a) ÷ (b)	\$ 58.28
Finished goods inventory (5,500 units × \$58.28 per unit)	\$ 320,540

356) Essay

Total manufacturing cost for the job (a)	\$ 1,126,700
Total number of units produced (b)	19,000
Unit product cost (a) ÷ (b)	\$ 59.30
Finished goods inventory (5,000 units × \$59.30 per unit)	\$ 296,500

357) Essay

Managerial Accounting Edition 18 by Garrison

Beginning balance	\$ 58,300
Direct materials	490,400
Direct labor cost	152,800
Manufacturing overhead cost applied	451,000
Total manufacturing cost for the job	<u>\$ 1,152,500</u>
Total number of units produced	<u>23,500</u>
Unit product cost	\$ 49.04
Cost of goods sold (5,500 units × \$49.04 per unit)	\$ 269,720

358) Essay

Beginning balance	\$ 55,200
Direct materials	489,900
Direct labor cost	151,800
Manufacturing overhead cost applied	448,500
Total manufacturing cost for the job	<u>\$ 1,145,400</u>
Total number of units produced	<u>23,000</u>
Unit product cost	\$ 49.80
Cost of goods sold (5,000 units × \$49.80 per unit)	\$ 249,000

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359) Essay

Beginning balance	\$ 58,100
Direct materials	490,600
Direct labor cost	153,200
Manufacturing overhead cost applied	451,000
Total manufacturing cost for the job	<u>\$ 1,152,900</u>
Total number of units produced	<u>23,100</u>
Unit product cost	\$ 49.91
Finished goods inventory (17,700 units × \$49.91 per unit)	\$ 883,407

360) Essay

Managerial Accounting Edition 18 by Garrison

Beginning balance	\$ 55,200
Direct materials	489,900
Direct labor cost	151,800
Manufacturing overhead cost applied	448,500
Total manufacturing cost for the job	<u>\$ 1,145,400</u>
Total number of units produced	<u>23,000</u>
Unit product cost	\$ 49.80
Finished goods inventory (18,000 units × \$49.80 per unit)	\$ 896,400

361) Essay

Estimated total manufacturing overhead = \$1,533,180 + (\$8.41 per labor-hour × 66,000 labor-hours) = \$2,088,240

Predetermined overhead rate = \$2,088,240 ÷ 66,000 labor-hours = \$31.64 per labor-hour

362) Essay

Estimated total manufacturing overhead = \$705,220 + (\$4.43 per labor-hour × 37,000 labor-hours) = \$869,130

Predetermined overhead rate = \$869,130 ÷ 37,000 labor-hours = \$23.49 per labor-hour

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363) Essay

Estimated total manufacturing overhead = \$985,920 + (\$9.99 per labor-hour × 78,000 labor-hours) = \$1,765,140

Predetermined overhead rate = \$1,765,140 ÷ 78,000 labor-hours = \$22.63 per labor-hour

364) Essay

Estimated total manufacturing overhead = \$1,077,000 + (\$8.82 per machine-hour × 50,000 machine-hours) = \$1,518,000

Predetermined overhead rate = \$1,518,000 ÷ 50,000 machine-hours = \$30.36 per machine-hour

365) Essay

Cost Summary

Direct materials	\$ 48,870
Direct labor (\$13 per DLH × 405 DLHs)	5,265
Manufacturing overhead (\$11 per MH × 486 MHs)	<u>5,346</u>
Total product cost	\$ 59,481
Unit product cost	\$ 22.03

366) Essay

Managerial Accounting Edition 18 by Garrison

Cost Summary

Direct materials	\$ 59,400
Direct labor (\$15 per DLH × 1,224 DLHs)	18,360
Manufacturing overhead (\$35 per DLH × 1,224 DLHs)	42,840
Total product cost	<u>\$ 120,600</u>
Unit product cost	\$ 33.50

367) Essay

Total manufacturing cost for the job (a)	\$ 1,054,000
Total number of units produced (b)	20,000
Unit product cost (a) ÷ (b)	\$ 52.70
Units sold (a)	7,000
Unit product cost (b)	\$ 52.70
Cost of goods sold (a) × (b)	\$ 368,900

368) Essay

Total manufacturing cost for the job (a)	\$ 1,054,000
Total number of units produced (b)	20,000
Unit product cost (a) ÷ (b)	\$ 52.70
Units in finished goods inventory (a)	13,000
Unit product cost (b)	\$ 52.70
Finished goods inventory (a) × (b)	\$ 685,100

369) Essay

Beginning balance	\$ 29,400
Direct materials	498,400
Direct labor cost	103,600
Manufacturing overhead cost applied	186,200
Total manufacturing cost for the job	<u>\$ 817,600</u>
Total number of units produced	<u>14,000</u>
Unit product cost	\$ 58.40
Units sold (a)	3,000
Unit product cost (b)	\$ 58.40
Cost of goods sold (a) × (b)	\$ 175,200

370) Essay

Managerial Accounting Edition 18 by Garrison

Beginning balance	\$ 29,400
Direct materials	498,400
Direct labor cost	103,600
Manufacturing overhead cost applied	186,200
Total manufacturing cost for the job	<u>\$ 817,600</u>
Total number of units produced	<u>14,000</u>
Unit product cost	\$ 58.40
Units in finished goods inventory (a)	11,000
Unit product cost (b)	\$ 58.40
Finished goods inventory (a) × (b)	\$ 642,400

371) Essay

Total manufacturing cost for the job (a)	\$ 1,179,200
Total number of units produced (b)	22,000
Unit product cost (a) ÷ (b)	\$ 53.60
Cost of goods sold (4,000 units × \$53.60 per unit)	\$ 214,400

372) Essay

TBEXAM.COM

Total manufacturing cost for the job (a)	\$ 1,179,200
Total number of units produced (b)	22,000
Unit product cost (a) ÷ (b)	\$ 53.60
Finished goods inventory (18,000 units × \$53.60 per unit)	\$ 964,800

373) Essay

Total manufacturing cost for the job (a)	\$ 1,126,700
Total number of units produced (b)	19,000
Unit product cost (a) ÷ (b)	\$ 59.30
Cost of goods sold (14,000 units × \$59.30 per unit)	\$ 830,200

374) Essay

Managerial Accounting Edition 18 by Garrison

Total manufacturing cost for the job (a)	\$ 1,126,700
Total number of units produced (b)	19,000
Unit product cost (a) ÷ (b)	\$ 59.30
Finished goods inventory (5,000 units × \$59.30 per unit)	\$ 296,500

375) Essay

Beginning balance	\$ 55,200
Direct materials	489,900
Direct labor cost	151,800
Manufacturing overhead cost applied	448,500
Total manufacturing cost for the job	<u>\$ 1,145,400</u>
Total number of units produced	<u>23,000</u>
Unit product cost	\$ 49.80
Cost of goods sold (5,000 units × \$49.80 per unit)	\$ 249,000

376) Essay

Beginning balance	TBEXAM.COM	\$ 55,200
Direct materials		489,900
Direct labor cost		151,800
Manufacturing overhead cost applied		448,500
Total manufacturing cost for the job		<u>\$ 1,145,400</u>
Total number of units produced		<u>23,000</u>
Unit product cost		\$ 49.80
Finished goods inventory (18,000 units × \$49.80 per unit)		\$ 896,400

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CORRECT ANSWERS ARE LOCATED IN THE 2ND HALF OF THIS DOC.

MULTIPLE CHOICE - Choose the one alternative that best completes the statement or answers the question.

- 1) Feauto Manufacturing Corporation has a traditional costing system in which it applies manufacturing overhead to its products using a predetermined overhead rate based on direct labor-hours (DLHs). The company has two products, I63E and E76I, about which it has provided the following data:

	I63E	E76I
Direct materials per unit	\$ 21.90	\$ 65.70
Direct labor per unit	\$ 11.10	\$ 33.30
Direct labor-hours per unit	0.50	1.50
Annual production (units)	48,000	16,000

The company's estimated total manufacturing overhead for the year is \$1,963,200 and the company's estimated total direct labor-hours for the year is 48,000.

The company is considering using a form of activity-based costing to determine its unit product costs for external reports. Data for this proposed activity-based costing system appear below:

Activities and Activity Measures	Estimated Overhead Cost
Assembling products (direct labor-hours)	\$ 960,000
Preparing batches (batches)	228,800
Product support (product variations)	774,400
Total	\$ 1,963,200

	Expected Activity		
	I63E	E76I	Total
Direct labor-hours	24,000	24,000	48,000
Batches	1,250	720	1,970
Product variations	2,500	1,440	3,940

The manufacturing overhead that would be applied to a unit of product I63E under the company's traditional costing system is closest to:

- A) \$40.90
- B) \$61.35
- C) \$40.90
- D) \$20.45

Managerial Accounting Edition 18 by Garrison

- 2) Feauto Manufacturing Corporation has a traditional costing system in which it applies manufacturing overhead to its products using a predetermined overhead rate based on direct labor-hours (DLHs). The company has two products, I63E and E76I, about which it has provided the following data:

	I63E	E76I
Direct materials per unit	\$ 19.90	\$ 54.40
Direct labor per unit	\$ 12.00	\$ 31.50
Direct labor-hours per unit	0.80	2.10
Annual production (units)	30,000	10,000

The company's estimated total manufacturing overhead for the year is \$2,063,250 and the company's estimated total direct labor-hours for the year is 45,000.

The company is considering using a form of activity-based costing to determine its unit product costs for external reports. Data for this proposed activity-based costing system appear below:

Activities and Activity Measures	Estimated Overhead Cost			
Assembling products (direct labor-hours)	\$ 720,000			
Preparing batches (batches)	263,250			
Product support (product variations)	1,080,000			
Total	<u>\$ 2,063,250</u>			
		Expected Activity		
		I63E	E76I	Total
Direct labor-hours		24,000	21,000	45,000
Batches		1,080	675	1,755
Product variations		2,115	1,485	3,600

The manufacturing overhead that would be applied to a unit of product I63E under the company's traditional costing system is closest to:

- A) \$12.80
- B) \$39.35
- C) \$76.03
- D) \$36.68

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- 3) Feauto Manufacturing Corporation has a traditional costing system in which it applies manufacturing overhead to its products using a predetermined overhead rate based on direct labor-hours (DLHs). The company has two products, I63E and E76I, about which it has provided the following data:

	I63E	E76I
Direct materials per unit	\$ 19.10	\$ 57.30
Direct labor per unit	\$ 15.50	\$ 46.50
Direct labor-hours per unit	0.70	2.10
Annual production (units)	60,000	20,000

The company's estimated total manufacturing overhead for the year is \$2,886,000 and the company's estimated total direct labor-hours for the year is 84,000.

The company is considering using a form of activity-based costing to determine its unit product costs for external reports. Data for this proposed activity-based costing system appear below:

Activities and Activity Measures	Estimated Overhead Cost			
Assembling products (direct labor-hours)	\$ 1,680,000			
Preparing batches (batches)	234,000			
Product support (product variations)	972,000			
Total	\$ 2,886,000			
		Expected Activity		
		I63E	E76I	Total
Direct labor-hours		42,000	42,000	84,000
Batches		1,200	700	1,900
Product variations		2,400	1,400	3,800

The manufacturing overhead that would be applied to a unit of product E76I under the activity-based costing system is closest to:

- A) \$64.22
- B) \$34.36
- C) \$144.30
- D) \$30.58

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- 4) Feauto Manufacturing Corporation has a traditional costing system in which it applies manufacturing overhead to its products using a predetermined overhead rate based on direct labor-hours (DLHs). The company has two products, I63E and E76I, about which it has provided the following data:

	I63E	E76I
Direct materials per unit	\$ 19.90	\$ 54.40
Direct labor per unit	\$ 12.00	\$ 31.50
Direct labor-hours per unit	0.80	2.10
Annual production (units)	30,000	10,000

The company's estimated total manufacturing overhead for the year is \$2,063,250 and the company's estimated total direct labor-hours for the year is 45,000.

The company is considering using a form of activity-based costing to determine its unit product costs for external reports. Data for this proposed activity-based costing system appear below:

Activities and Activity Measures	Estimated Overhead Cost			
Assembling products (direct labor-hours)	\$ 720,000			
Preparing batches (batches)	263,250			
Product support (product variations)	1,080,000			
Total	\$ 2,063,250			
		Expected Activity		
		I63E	E76I	Total
Direct labor-hours		24,000	21,000	45,000
Batches		1,080	675	1,755
Product variations		2,115	1,485	3,600

The manufacturing overhead that would be applied to a unit of product E76I under the activity-based costing system is closest to:

- A) \$88.28
- B) \$96.29
- C) \$184.57
- D) \$10.13

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- 5) Coudriet Manufacturing Corporation has a traditional costing system in which it applies manufacturing overhead to its products using a predetermined overhead rate based on direct labor-hours (DLHs). The company has two products, P93S and N40S, about which it has provided the following data:

	P93S	N40S
Direct materials per unit	\$ 21.90	\$ 54.80
Direct labor per unit	\$ 8.80	\$ 13.20
Direct labor-hours per unit	0.80	1.20
Annual production (units)	35,000	15,000

The company's estimated total manufacturing overhead for the year is \$2,172,580 and the company's estimated total direct labor-hours for the year is 46,000.

The company is considering using a variation of activity-based costing to determine its unit product costs for external reports. Data for this proposed activity-based costing system appear below:

Activities and Activity Measures	Estimated Overhead Cost	Expected Activity		
Direct labor support (direct labor-hours)	\$ 552,000	P93S	N40S	Total
Setting up machines (setups)	419,980	28,000	18,000	46,000
Part administration (part types)	1,200,600	2,162	1,656	3,818
Total	\$ 2,172,580	1,886	2,116	4,002

The unit product cost of product P93S under the company's traditional costing system is closest to:

- A) \$68.48
- B) \$63.26
- C) \$30.70
- D) \$40.30

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- 6) Coudriet Manufacturing Corporation has a traditional costing system in which it applies manufacturing overhead to its products using a predetermined overhead rate based on direct labor-hours (DLHs). The company has two products, P93S and N40S, about which it has provided the following data:

	P93S	N40S
Direct materials per unit	\$ 21.90	\$ 54.80
Direct labor per unit	\$ 8.80	\$ 13.20
Direct labor-hours per unit	0.80	1.20
Annual production (units)	35,000	15,000

The company's estimated total manufacturing overhead for the year is \$2,172,580 and the company's estimated total direct labor-hours for the year is 46,000.

The company is considering using a variation of activity-based costing to determine its unit product costs for external reports. Data for this proposed activity-based costing system appear below:

Activities and Activity Measures	Estimated Overhead Cost	Expected Activity		
Direct labor support (direct labor-hours)	\$ 552,000	P93S	N40S	Total
Setting up machines (setups)	419,980	28,000	18,000	46,000
Part administration (part types)	1,200,600	2,162	1,656	3,818
Total	\$ 2,172,580	1,886	2,116	4,002

The unit product cost of product N40S under the activity-based costing system is closest to:

- A) \$68.00
- B) \$68.86
- C) \$124.68
- D) \$136.86

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- 7) Poma Manufacturing Corporation has a traditional costing system in which it applies manufacturing overhead to its products using a predetermined overhead rate based on direct labor-hours (DLHs). The company has two products, R78S and N32Y, about which it has provided the following data:

	R78S	N32Y
Direct materials per unit	\$ 27.20	\$ 54.70
Direct labor per unit	\$ 8.80	\$ 22.00
Direct labor-hours per unit	0.4	1.0
Annual production (units)	35,000	10,000

The company's estimated total manufacturing overhead for the year is \$1,427,040 and the company's estimated total direct labor-hours for the year is 24,000.

The company is considering using a variation of activity-based costing to determine its unit product costs for external reports. Data for this proposed activity-based costing system appear below:

Activities and Activity Measures	Estimated Overhead Cost			
Assembling products (direct labor-hours)	\$ 672,000			
Preparing batches (batches)	255,840			
Product support (product variations)	499,200			
Total	\$ 1,427,040			
		Expected Activity		
		R78S	N32Y	Total
Direct labor-hours		14,000	10,000	24,000
Batches		816	1,152	1,968
Product variations		840	408	1,248

The unit product cost of product R78S under the company's traditional costing system is closest to:

- A) \$36.00
- B) \$59.83
- C) \$47.20
- D) \$59.78

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- 8) Poma Manufacturing Corporation has a traditional costing system in which it applies manufacturing overhead to its products using a predetermined overhead rate based on direct labor-hours (DLHs). The company has two products, R78S and N32Y, about which it has provided the following data:

	R78S	N32Y
Direct materials per unit	\$ 27.20	\$ 54.70
Direct labor per unit	\$ 8.80	\$ 22.00
Direct labor-hours per unit	0.4	1.0
Annual production (units)	35,000	10,000

The company's estimated total manufacturing overhead for the year is \$1,427,040 and the company's estimated total direct labor-hours for the year is 24,000.

The company is considering using a variation of activity-based costing to determine its unit product costs for external reports. Data for this proposed activity-based costing system appear below:

Activities and Activity Measures	Estimated Overhead Cost			
Assembling products (direct labor-hours)	\$ 672,000			
Preparing batches (batches)	255,840			
Product support (product variations)	499,200			
Total	\$ 1,427,040			
		Expected Activity		
		R78S	N32Y	Total
Direct labor-hours		14,000	10,000	24,000
Batches		816	1,152	1,968
Product variations		840	408	1,248

The unit product cost of product N32Y under the activity-based costing system is closest to:

- A) \$136.00
- B) \$76.70
- C) \$59.30
- D) \$136.16

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- 9) Adelberg Corporation makes two products: Product A and Product B. Annual production and sales are 500 units of Product A and 1,000 units of Product B. The company has traditionally used direct labor-hours as the basis for applying all manufacturing overhead to products. Product A requires 0.4 direct labor-hours per unit and Product B requires 0.2 direct labor-hours per unit. The total estimated overhead for next period is \$68,756. The company is considering switching to an activity-based costing system for the purpose of computing unit product costs for external reports. The new activity-based costing system would have three overhead activity cost pools--Activity 1, Activity 2, and General Factory--with estimated overhead costs and expected activity as follows:

Activity Cost Pool	Estimated Overhead Costs	Expected Activity		
		Product A	Product B	Total
Activity 1	\$ 31,031	1,000	300	1,300
Activity 2	22,249	1,600	300	1,900
General Factory	15,476	200	200	400
Total	<u>\$ 68,756</u>			

(Note: The General Factory activity cost pool's costs are allocated on the basis of direct labor-hours.)

The predetermined overhead rate under the traditional costing system is closest to:

- A) \$11.71
- B) \$38.69
- C) \$171.89
- D) \$23.87

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- 10) Adelberg Corporation makes two products: Product A and Product B. Annual production and sales are 500 units of Product A and 1,000 units of Product B. The company has traditionally used direct labor-hours as the basis for applying all manufacturing overhead to products. Product A requires 0.4 direct labor-hours per unit and Product B requires 0.2 direct labor-hours per unit. The total estimated overhead for next period is \$68,756. The company is considering switching to an activity-based costing system for the purpose of computing unit product costs for external reports. The new activity-based costing system would have three overhead activity cost pools--Activity 1, Activity 2, and General Factory--with estimated overhead costs and expected activity as follows:

Activity Cost Pool	Estimated Overhead Costs	Expected Activity		
		Product A	Product B	Total
Activity 1	\$ 31,031	1,000	300	1,300
Activity 2	22,249	1,600	300	1,900
General Factory	15,476	200	200	400
Total	<u>\$ 68,756</u>			

(Note: The General Factory activity cost pool's costs are allocated on the basis of direct labor-hours.)

The overhead cost per unit of Product B under the traditional costing system is closest to:

- A) \$2.34
- B) \$7.74
- C) \$4.77
- D) \$34.38

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- 11) Adelberg Corporation makes two products: Product A and Product B. Annual production and sales are 500 units of Product A and 1,000 units of Product B. The company has traditionally used direct labor-hours as the basis for applying all manufacturing overhead to products. Product A requires 0.4 direct labor-hours per unit and Product B requires 0.2 direct labor-hours per unit. The total estimated overhead for next period is \$68,756. The company is considering switching to an activity-based costing system for the purpose of computing unit product costs for external reports. The new activity-based costing system would have three overhead activity cost pools--Activity 1, Activity 2, and General Factory--with estimated overhead costs and expected activity as follows:

Activity Cost Pool	Estimated Overhead Costs	Expected Activity		
		Product A	Product B	Total
Activity 1	\$ 31,031	1,000	300	1,300
Activity 2	22,249	1,600	300	1,900
General Factory	15,476	200	200	400
Total	<u>\$ 68,756</u>			

(Note: The General Factory activity cost pool's costs are allocated on the basis of direct labor-hours.)

The predetermined overhead rate (i.e., activity rate) for Activity 2 under the activity-based costing system is closest to:

- A) \$13.91
- B) \$11.71
- C) \$74.16
- D) \$36.19

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- 12) Adelberg Corporation makes two products: Product A and Product B. Annual production and sales are 2,000 units of Product A and 2,000 units of Product B. The company has traditionally used direct labor-hours as the basis for applying all manufacturing overhead to products. Product A requires 0.4 direct labor-hours per unit and Product B requires 0.2 direct labor-hours per unit. The total estimated overhead for next period is \$107,650. The company is considering switching to an activity-based costing system for the purpose of computing unit product costs for external reports. The new activity-based costing system would have three overhead activity cost pools--Activity 1, Activity 2, and General Factory--with estimated overhead costs and expected activity as follows:

Activity Cost Pool	Estimated Overhead Costs	Expected Activity		
		Product A	Product B	Total
Activity 1	\$ 45,150	1,400	700	2,100
Activity 2	21,700	900	500	1,400
General Factory	40,800	800	400	1,200
Total	<u>\$ 107,650</u>			

(Note: The General Factory activity cost pool's costs are allocated on the basis of direct labor-hours.)

The overhead cost per unit of Product B under the activity-based costing system is closest to:

- A) \$37.00
- B) \$19.20
- C) \$26.00
- D) \$18.20

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- 13) Adelberg Corporation makes two products: Product A and Product B. Annual production and sales are 500 units of Product A and 1,000 units of Product B. The company has traditionally used direct labor-hours as the basis for applying all manufacturing overhead to products. Product A requires 0.4 direct labor-hours per unit and Product B requires 0.2 direct labor-hours per unit. The total estimated overhead for next period is \$68,756. The company is considering switching to an activity-based costing system for the purpose of computing unit product costs for external reports. The new activity-based costing system would have three overhead activity cost pools--Activity 1, Activity 2, and General Factory--with estimated overhead costs and expected activity as follows:

Activity Cost Pool	Estimated Overhead Costs	Expected Activity		
		Product A	Product B	Total
Activity 1	\$ 31,031	1,000	300	1,300
Activity 2	22,249	1,600	300	1,900
General Factory	15,476	200	200	400
Total	\$ 68,756			

(Note: The General Factory activity cost pool's costs are allocated on the basis of direct labor-hours.)

The overhead cost per unit of Product B under the activity-based costing system is closest to:

- A) \$45.84
- B) \$7.74
- C) \$34.38
- D) \$18.41

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- 14) Njombe Corporation manufactures a variety of products. In the past, Njombe has been using a traditional costing system in which the predetermined overhead rate was 150% of direct labor cost. Selling prices had been set by multiplying total product cost by 200%. Sensing that this system was distorting costs and selling prices, Njombe has decided to switch to an activity-based costing system for manufacturing overhead costs that uses the three activity cost pools listed below. Selling prices are still to be set at 200% of unit product cost under the new system. Information on these cost pools for next year are as follows:

Activity Cost Pool	Activity Measure	Estimated Activity	Estimated Overhead Cost
Machine Setups	Number of setups	400	\$ 150,000
Quality Control	Number of inspections	1,500	\$ 180,000
Other Overhead	Machine hours	30,000	\$ 480,000

Information (on a per unit basis) related to three popular products at Njombe are as follows:

	Model number 19	Model number 36	Model number 58
Direct material cost	\$ 400	\$ 540	\$ 310
Direct labor cost	\$ 810	\$ 600	\$ 220
Number of setups	2	3	1
Number of inspections	1	3	1
Number of machine hours	4	8	10

Under the traditional costing system, what would be the selling price of one unit of Model number 36?

- A) \$2,536
- B) \$2,712
- C) \$4,080
- D) \$5,506

Managerial Accounting Edition 18 by Garrison

- 15) Njombe Corporation manufactures a variety of products. In the past, Njombe has been using a traditional costing system in which the predetermined overhead rate was 150% of direct labor cost. Selling prices had been set by multiplying total product cost by 200%. Sensing that this system was distorting costs and selling prices, Njombe has decided to switch to an activity-based costing system for manufacturing overhead costs that uses the three activity cost pools listed below. Selling prices are still to be set at 200% of unit product cost under the new system. Information on these cost pools for next year are as follows:

Activity Cost Pool	Activity Measure	Estimated Activity	Estimated Overhead Cost
Machine Setups	Number of setups	400	\$ 150,000
Quality Control	Number of inspections	1,500	\$ 180,000
Other Overhead	Machine hours	30,000	\$ 480,000

Information (on a per unit basis) related to three popular products at Njombe are as follows:

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Number of inspections	1	3	1
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Under the activity-based costing system, what would be the selling price of one unit of Model number 36?

- A) \$2,536
- B) \$2,712
- C) \$4,080
- D) \$5,506

Managerial Accounting Edition 18 by Garrison

- 16) Njombe Corporation manufactures a variety of products. In the past, Njombe has been using a traditional costing system in which the predetermined overhead rate was 150% of direct labor cost. Selling prices had been set by multiplying total product cost by 200%. Sensing that this system was distorting costs and selling prices, Njombe has decided to switch to an activity-based costing system for manufacturing overhead costs that uses the three activity cost pools listed below. Selling prices are still to be set at 200% of unit product cost under the new system. Information on these cost pools for next year are as follows:

Activity Cost Pool	Activity Measure	Estimated Activity	Estimated Overhead Cost
Machine Setups	Number of setups	400	\$ 150,000
Quality Control	Number of inspections	1,500	\$ 180,000
Other Overhead	Machine hours	30,000	\$ 480,000

Information (on a per unit basis) related to three popular products at Njombe are as follows:

	Model number 19	Model number 36	Model number 58
Direct material cost	\$ 400	\$ 540	\$ 310
Direct labor cost	\$ 810	\$ 600	\$ 220
Number of setups	2	3	1
Number of inspections	1	3	1
Number of machine hours	4	8	10

In comparing the traditional system with the activity-based costing system, which of Njombe's Models had higher unit product costs under the traditional system?

- A) number 19
- B) number 58
- C) number 19 and number 58
- D) number 36 and number 58

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- 17) Look Manufacturing Corporation has a traditional costing system in which it applies manufacturing overhead to its products using a predetermined overhead rate based on direct labor-hours (DLHs). The company has two products, N06D and M09K, about which it has provided the following data:

	N06D	M09K
Direct materials per unit	\$ 26.80	\$ 61.30
Direct labor per unit	\$ 10.00	\$ 33.00
Direct labor-hours per unit	0.20	1.00
Annual production (units)	49,400	16,100

The company's estimated total manufacturing overhead for the year is \$1,294,164 and the company's estimated total direct labor-hours for the year is 25,980.

The company is considering using a variation of activity-based costing to determine its unit product costs for external reports. Data for this proposed activity-based costing system appear below:

Activities and Activity Measures	Estimated Overhead Cost	Expected Activity		
Supporting direct labor (direct labor-hours)	\$ 441,660			
Setting up machines (setups)	376,740			
Parts administration (part types)	475,764			
Total	\$ 1,294,164			
		N06D	M09K	Total
Direct labor-hours		9,880	16,100	25,980
Setups		1,720	971	2,691
Part types		635	332	967

The manufacturing overhead that would be applied to a unit of product N06D under the company's traditional costing system is closest to:

Note: Round your intermediate calculations to 2 decimal places.

- A) \$9.96
- B) \$4.95
- C) \$21.49
- D) \$13.48

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- 18) Look Manufacturing Corporation has a traditional costing system in which it applies manufacturing overhead to its products using a predetermined overhead rate based on direct labor-hours (DLHs). The company has two products, N06D and M09K, about which it has provided the following data:

	N06D	M09K
Direct materials per unit	\$ 17.70	\$ 62.50
Direct labor per unit	\$ 5.00	\$ 16.00
Direct labor-hours per unit	0.50	1.60
Annual production (units)	40,000	15,000

The company's estimated total manufacturing overhead for the year is \$2,532,200 and the company's estimated total direct labor-hours for the year is 44,000.

The company is considering using a variation of activity-based costing to determine its unit product costs for external reports. Data for this proposed activity-based costing system appear below:

Activities and Activity Measures	Estimated Overhead Cost	Expected Activity		
Supporting direct labor (direct labor-hours)	\$ 880,000	N06D	M09K	Total
Setting up machines (setups)	376,200	20,000	24,000	44,000
Parts administration (part types)	1,276,000	1,408	1,100	2,508
Total	\$ 2,532,200	1,540	1,012	2,552

The manufacturing overhead that would be applied to a unit of product N06D under the company's traditional costing system is closest to:

- A) \$28.78
- B) \$10.00
- C) \$63.31
- D) \$34.53

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- 19) Look Manufacturing Corporation has a traditional costing system in which it applies manufacturing overhead to its products using a predetermined overhead rate based on direct labor-hours (DLHs). The company has two products, N06D and M09K, about which it has provided the following data:

	N06D	M09K
Direct materials per unit	\$ 31.20	\$ 68.30
Direct labor per unit	\$ 8.00	\$ 32.00
Direct labor-hours per unit	0.20	1.00
Annual production (units)	50,900	18,600

The company's estimated total manufacturing overhead for the year is \$1,454,596 and the company's estimated total direct labor-hours for the year is 28,780.

The company is considering using a variation of activity-based costing to determine its unit product costs for external reports. Data for this proposed activity-based costing system appear below:

Activities and Activity Measures	Estimated Overhead Cost			
Supporting direct labor (direct labor-hours)	\$ 518,040			
Setting up machines (setups)	488,176			
Parts administration (part types)	448,380			
Total	\$ 1,454,596			
		Expected Activity		
		N06D	M09K	Total
Direct labor-hours		10,180	18,600	28,780
Setups		1,340	1,007	2,347
Part types		683	271	954

The manufacturing overhead that would be applied to a unit of product M09K under the activity-based costing system is closest to:

- A) \$36.11
- B) \$46.66
- C) \$77.17
- D) \$13.71

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- 20) Look Manufacturing Corporation has a traditional costing system in which it applies manufacturing overhead to its products using a predetermined overhead rate based on direct labor-hours (DLHs). The company has two products, N06D and M09K, about which it has provided the following data:

	N06D	M09K
Direct materials per unit	\$ 17.70	\$ 62.50
Direct labor per unit	\$ 5.00	\$ 16.00
Direct labor-hours per unit	0.50	1.60
Annual production (units)	40,000	15,000

The company's estimated total manufacturing overhead for the year is \$2,532,200 and the company's estimated total direct labor-hours for the year is 44,000.

The company is considering using a variation of activity-based costing to determine its unit product costs for external reports. Data for this proposed activity-based costing system appear below:

Activities and Activity Measures	Estimated Overhead Cost			
Supporting direct labor (direct labor-hours)	\$ 880,000			
Setting up machines (setups)	376,200			
Parts administration (part types)	1,276,000			
Total	<u>\$ 2,532,200</u>			
		Expected Activity		
		N06D	M09K	Total
Direct labor-hours		20,000	24,000	44,000
Setups		1,408	1,100	2,508
Part types		1,540	1,012	2,552

The manufacturing overhead that would be applied to a unit of product M09K under the activity-based costing system is closest to:

- A) \$76.73
- B) \$92.08
- C) \$11.00
- D) \$168.81

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ESSAY. Write your answer in the space provided or on a separate sheet of paper.

- 21) Bullie Manufacturing Corporation has a traditional costing system in which it applies manufacturing overhead to its products using a predetermined overhead rate based on direct labor-hours (DLHs). The company has two products, D31X and U75X, about which it has provided the following data:

	D31X	U75X
Direct materials per unit	\$ 29.20	\$ 47.40
Direct labor per unit	\$ 1.10	\$ 23.10
Direct labor-hours per unit	0.10	2.10
Annual production (units)	35,000	15,000

The company's estimated total manufacturing overhead for the year is \$1,147,650 and the company's estimated total direct labor-hours for the year is 35,000.

The company is considering using a variation of activity-based costing to determine its unit product costs for external reports. Data for this proposed activity-based costing system appear below:

Activities and Activity Measures	Estimated Overhead Cost		
Assembling products (direct labor-hours)	\$ 140,000		
Preparing batches (batches)	241,150		
Axial milling (machine-hours)	766,500		
Total	\$ 1,147,650		
	D31X	U75X	Total
Assembling products	3,500	31,500	35,000
Preparing batches	560	1,295	1,855
Axial milling	1,540	1,015	2,555

Required:

- Determine the manufacturing overhead cost per unit of each of the company's two products under the traditional costing system.
- Determine the manufacturing overhead cost per unit of each of the company's two products under activity-based costing system.

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- 22) Torri Manufacturing Corporation has a traditional costing system in which it applies manufacturing overhead to its products using a predetermined overhead rate based on direct labor-hours (DLHs). The company has two products, B40W and C63J, about which it has provided the following data:

	B40W	C63J
Direct materials per unit	\$ 34.90	\$ 63.70
Direct labor per unit	\$ 20.80	\$ 62.40
Direct labor-hours per unit	0.80	2.40
Annual production (units)	35,000	15,000

The company's estimated total manufacturing overhead for the year is \$2,656,000 and the company's estimated total direct labor-hours for the year is 64,000.

The company is considering using a variation of activity-based costing to determine its unit product costs for external reports. Data for this proposed activity-based costing system appear below:

Activities and Activity Measures	Estimated Overhead Cost		
Assembling products (direct labor-hours)	\$ 1,216,000		
Preparing batches (batches)	480,000		
Milling (machine-hours)	960,000		
Total	\$ 2,656,000		
Activities	B40W	C63J	Total
Assembling products	28,000	36,000	64,000
Preparing batches	2,304	2,496	4,800
Milling	1,088	2,112	3,200

Required:

- Determine the unit product cost of each of the company's two products under the traditional costing system.
- Determine the unit product cost of each of the company's two products under activity-based costing system.

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- 23) Cabigas Corporation manufactures two products, Product C and Product D. The company estimated it would incur \$167,140 in manufacturing overhead costs during the current period. Overhead currently is applied to the products on the basis of direct labor-hours. Data concerning the current period's operations appear below:

	Product C	Product D
Estimated volume	2,000 units	2,700 units
Direct labor-hours per unit	2.00 hours	0.80 hour
Direct materials cost per unit	\$ 21.50	\$ 24.10
Direct labor cost per unit	\$ 24.00	\$ 9.60

Required:

- Compute the predetermined overhead rate under the current method, and determine the unit product cost of each product for the current year.
- The company is considering using an activity-based costing system to compute unit product costs for external financial reports instead of its traditional system based on direct labor-hours. The activity-based costing system would use three activity cost pools.

Data relating to these activities for the current period are given below:

Activity Cost Pool	Estimated Overhead Costs	Expected Activity		
		Product C	Product D	Total
Machine setups	\$ 13,630	130	160	290
Purchase orders	85,750	750	1,000	1,750
General factory	67,760	4,000	2,160	6,160
	<u>\$ 167,140</u>			

Determine the unit product cost of each product for the current period using the activity-based costing approach. General factory overhead is allocated based on direct labor-hours.

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- 24) Welk Manufacturing Corporation has a traditional costing system in which it applies manufacturing overhead to its products using a predetermined overhead rate based on direct labor-hours (DLHs). The company has two products, H16Z and P25P, about which it has provided the following data:

	H16Z	P25P
Direct materials per unit	\$ 10.20	\$ 50.50
Direct labor per unit	\$ 8.40	\$ 25.20
Direct labor-hours per unit	0.40	1.20
Annual production (units)	30,000	10,000

The company's estimated total manufacturing overhead for the year is \$1,464,480 and the company's estimated total direct labor-hours for the year is 24,000.

The company is considering using a variation of activity-based costing to determine its unit product costs for external reports. Data for this proposed activity-based costing system appear below:

Activities and Activity Measures	Estimated Overhead Cost		
Supporting direct labor (direct labor-hours)	\$ 552,000		
Setting up machines (setups)	132,480		
Parts administration (part types)	780,000		
Total	\$ 1,464,480		
	H16Z	P25P	Total
Supporting direct labor	12,000	12,000	24,000
Setting up machines	864	240	1,104
Parts administration	600	960	1,560

Required:

- Determine the manufacturing overhead cost per unit of each of the company's two products under the traditional costing system.
- Determine the manufacturing overhead cost per unit of each of the company's two products under activity-based costing system.

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25) Werger Manufacturing Corporation has a traditional costing system in which it applies manufacturing overhead to its products using a predetermined overhead rate based on direct labor-hours (DLHs). The company has two products, W82R and L48S, about which it has provided the following data:

	W82R	L48S
Direct materials per unit	\$ 21.90	\$ 57.40
Direct labor per unit	\$ 18.80	\$ 64.60
Direct labor-hours per unit	0.70	2.40
Annual production (units)	36,200	24,900

The company's estimated total manufacturing overhead for the year is \$2,663,222 and the company's estimated total direct labor-hours for the year is 85,100.

The company is considering using a variation of activity-based costing to determine its unit product costs for external reports. Data for this proposed activity-based costing system appear below:

Activities and Activity Measures	Estimated Overhead Cost
Supporting direct labor (direct labor-hours)	\$ 595,700
Setting up machines (setups)	865,062
Parts administration (part types)	1,202,460
Total	\$ 2,663,222

Activities	W82R	L48S	Total
Supporting direct labor	25,340	59,760	85,100
Setting up machines	839	3,530	4,369
Parts administration	1,750	1,190	2,940

Required:

- Determine the unit product cost of each of the company's two products under the traditional costing system.
- Determine the unit product cost of each of the company's two products under activity-based costing system.

Note: For all requirements, round your intermediate calculations and final answers to 2 decimal places.

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- 26) Werger Manufacturing Corporation has a traditional costing system in which it applies manufacturing overhead to its products using a predetermined overhead rate based on direct labor-hours (DLHs). The company has two products, W82R and L48S, about which it has provided the following data:

	W82R	L48S
Direct materials per unit	\$ 11.50	\$ 62.90
Direct labor per unit	\$ 2.00	\$ 13.00
Direct labor-hours per unit	0.20	1.30
Annual production (units)	45,000	10,000

The company's estimated total manufacturing overhead for the year is \$1,521,960 and the company's estimated total direct labor-hours for the year is 22,000.

The company is considering using a variation of activity-based costing to determine its unit product costs for external reports. Data for this proposed activity-based costing system appear below:

Activities and Activity Measures	Estimated Overhead Cost
Supporting direct labor (direct labor-hours)	\$ 352,000
Setting up machines (setups)	201,960
Parts administration (part types)	968,000
Total	\$ 1,521,960

Activities	W82R	L48S	Total
Supporting direct labor	9,000	13,000	22,000
Setting up machines	814	374	1,188
Parts administration	924	1,012	1,936

Required:

- Determine the unit product cost of each of the company's two products under the traditional costing system.
- Determine the unit product cost of each of the company's two products under activity-based costing system.

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- 27) Bullie Manufacturing Corporation has a traditional costing system in which it applies manufacturing overhead to its products using a predetermined overhead rate based on direct labor-hours (DLHs). The company has two products, D31X and U75X, about which it has provided the following data:

	D31X	U75X
Direct materials per unit	\$ 29.20	\$ 47.40
Direct labor per unit	\$ 1.10	\$ 23.10
Direct labor-hours per unit	0.10	2.10
Annual production (units)	35,000	15,000

The company's estimated total manufacturing overhead for the year is \$1,147,650 and the company's estimated total direct labor-hours for the year is 35,000.

The company is considering using a variation of activity-based costing to determine its unit product costs for external reports. Data for this proposed activity-based costing system appear below:

Activities and Activity Measures	Estimated Overhead Cost		
Assembling products (direct labor-hours)	\$ 140,000		
Preparing batches (batches)	241,150		
Axial milling (machine-hours)	766,500		
Total	\$ 1,147,650		
	D31X	U75X	Total
Assembling products	3,500	31,500	35,000
Preparing batches	560	1,295	1,855
Axial milling	1,540	1,015	2,555

Required:

- Determine the manufacturing overhead cost per unit of each of the company's two products under the traditional costing system.
- Determine the manufacturing overhead cost per unit of each of the company's two products under activity-based costing system.

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28) Torri Manufacturing Corporation has a traditional costing system in which it applies manufacturing overhead to its products using a predetermined overhead rate based on direct labor-hours (DLHs). The company has two products, B40W and C63J, about which it has provided the following data:

	B40W	C63J
Direct materials per unit	\$ 34.90	\$ 63.70
Direct labor per unit	\$ 20.80	\$ 62.40
Direct labor-hours per unit	0.80	2.40
Annual production (units)	35,000	15,000

The company's estimated total manufacturing overhead for the year is \$2,656,000 and the company's estimated total direct labor-hours for the year is 64,000.

The company is considering using a variation of activity-based costing to determine its unit product costs for external reports. Data for this proposed activity-based costing system appear below:

Activities and Activity Measures	Estimated Overhead Cost		
Assembling products (direct labor-hours)	\$ 1,216,000		
Preparing batches (batches)	480,000		
Milling (machine-hours)	960,000		
Total	\$ 2,656,000		
Activities	B40W	C63J	Total
Assembling products	28,000	36,000	64,000
Preparing batches	2,304	2,496	4,800
Milling	1,088	2,112	3,200

Required:

- Determine the unit product cost of each of the company's two products under the traditional costing system.
- Determine the unit product cost of each of the company's two products under activity-based costing system.

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- 29) Cabigas Corporation manufactures two products, Product C and Product D. The company estimated it would incur \$167,140 in manufacturing overhead costs during the current period. Overhead currently is applied to the products on the basis of direct labor-hours. Data concerning the current period's operations appear below:

	Product C	Product D
Estimated volume	2,000 units	2,700 units
Direct labor-hours per unit	2.00 hours	0.80 hour
Direct materials cost per unit	\$ 21.50	\$ 24.10
Direct labor cost per unit	\$ 24.00	\$ 9.60

Required:

- Compute the predetermined overhead rate under the current method, and determine the unit product cost of each product for the current year.
- The company is considering using an activity-based costing system to compute unit product costs for external financial reports instead of its traditional system based on direct labor-hours. The activity-based costing system would use three activity cost pools.

Data relating to these activities for the current period are given below:

Activity Cost Pool	Estimated Overhead Costs	Expected Activity		
		Product C	Product D	Total
Machine setups	\$ 13,630	130	160	290
Purchase orders	85,750	750	1,000	1,750
General factory	67,760	4,000	2,160	6,160
	<u>\$ 167,140</u>			

Determine the unit product cost of each product for the current period using the activity-based costing approach. General factory overhead is allocated based on direct labor-hours.

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- 30) Welk Manufacturing Corporation has a traditional costing system in which it applies manufacturing overhead to its products using a predetermined overhead rate based on direct labor-hours (DLHs). The company has two products, H16Z and P25P, about which it has provided the following data:

	H16Z	P25P
Direct materials per unit	\$ 10.20	\$ 50.50
Direct labor per unit	\$ 8.40	\$ 25.20
Direct labor-hours per unit	0.40	1.20
Annual production (units)	30,000	10,000

The company's estimated total manufacturing overhead for the year is \$1,464,480 and the company's estimated total direct labor-hours for the year is 24,000.

The company is considering using a variation of activity-based costing to determine its unit product costs for external reports. Data for this proposed activity-based costing system appear below:

Activities and Activity Measures	Estimated Overhead Cost		
Supporting direct labor (direct labor-hours)	\$ 552,000		
Setting up machines (setups)	132,480		
Parts administration (part types)	780,000		
Total	\$ 1,464,480		
	H16Z	P25P	Total
Supporting direct labor	12,000	12,000	24,000
Setting up machines	864	240	1,104
Parts administration	600	960	1,560

Required:

- Determine the manufacturing overhead cost per unit of each of the company's two products under the traditional costing system.
- Determine the manufacturing overhead cost per unit of each of the company's two products under activity-based costing system.

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- 31) Werger Manufacturing Corporation has a traditional costing system in which it applies manufacturing overhead to its products using a predetermined overhead rate based on direct labor-hours (DLHs). The company has two products, W82R and L48S, about which it has provided the following data:

	W82R	L48S
Direct materials per unit	\$ 11.50	\$ 62.90
Direct labor per unit	\$ 2.00	\$ 13.00
Direct labor-hours per unit	0.20	1.30
Annual production (units)	45,000	10,000

The company's estimated total manufacturing overhead for the year is \$1,521,960 and the company's estimated total direct labor-hours for the year is 22,000.

The company is considering using a variation of activity-based costing to determine its unit product costs for external reports. Data for this proposed activity-based costing system appear below:

Activities and Activity Measures	Estimated Overhead Cost
Supporting direct labor (direct labor-hours)	\$ 352,000
Setting up machines (setups)	201,960
Parts administration (part types)	968,000
Total	\$ 1,521,960

Activities	W82R	L48S	Total
Supporting direct labor	9,000	13,000	22,000
Setting up machines	814	374	1,188
Parts administration	924	1,012	1,936

Required:

- Determine the unit product cost of each of the company's two products under the traditional costing system.
- Determine the unit product cost of each of the company's two products under activity-based costing system.

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Answer Key

Test name: Chapter 02A

1) D

Product I63E 48,000 units × 0.50 direct labor-hours per unit	24,000
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Product E76I 16,000 units × 1.50 direct labor-hours per unit	24,000
--	--------

Total direct labor-hours	48,000
--------------------------	--------

Predetermined overhead rate = \$1,963,200 ÷ 48,000 direct labor-hours = \$40.90 per direct labor-hour

Overhead applied to a unit of product T37C = \$40.90 per direct labor-hours × 0.50 direct labor-hours per unit = \$20.45 per unit

2) D

Product I63E 30,000 units × 0.80 direct labor-hours per unit	24,000
--	--------

Product E76I 10,000 units × 2.10 direct labor-hours per unit	21,000
--	--------

Total direct labor-hours	45,000
--------------------------	--------

Predetermined overhead rate = \$2,063,250 ÷ 45,000 direct labor-hours = \$45.85 per direct labor-hour

Overhead applied to a unit of product T37C = \$45.85 per direct labor-hours × 0.80 direct labor-hours per unit = \$36.68 per unit

3) A

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The activity rates for each activity cost pool are computed as follows:

	Total Cost	Total Activity	Activity Rate
Assembling products	\$ 1,680,000	84,000 direct labor-hours	\$ 20.00 per direct labor-hour
Preparing batches	\$ 234,000	1,900 batches	\$ 123.16 per batch
Product support	\$ 972,000	3,800 variations	\$ 255.79 per variation

The overhead cost charged to Product E76I is:

	Activity Rate	Activity	ABC Cost
Assembling products	\$ 20.00 per direct labor-hour	42,000 direct labor-hours	\$ 840,000.00
Preparing batches	\$ 123.16 per batch	700 batches	86,210.53
Product support	\$ 255.79 per variation	1,400 variations	358,105.26
Total			<u>\$ 1,284,315.79</u>

Manufacturing overhead applied to a unit of product E76I = $\$1,284,315.79 \div 20,000 \text{ units} = \64.22 per unit

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4) A

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The activity rates for each activity cost pool are computed as follows:

	Total Cost	Total Activity	Activity Rate
Assembling products	\$ 720,000	45,000 direct labor-hours	\$ 16 per direct labor-hour
Preparing batches	\$ 263,250	1,755 batches	\$ per batch
Product support	\$ 3,600	300 variations	\$ per variation
	1,080,000		

The overhead cost charged to Product E76I is:

	Activity Rate	Activity	ABC Cost
Assembling products	\$ 16 per direct labor-hour	21,000 direct labor-hours	\$ 336,000
Preparing batches	\$ per batch	675 batches	101,250
Product support	\$ per variation	1,485 variations	445,500
Total			<u>\$ 882,750</u>

Manufacturing overhead applied to a unit of product E76I = $\$882,750 \div 10,000$ units = \$88.28 per unit

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5) A

Direct labor-hour calculation:

Product P93S	35,000 units × 0.80 direct labor-hours per unit	28,000
Product R28K	15,000 units × 1.20 direct labor-hours per unit	18,000
Total direct labor-hours		<u><u>46,000</u></u>

Predetermined overhead rate = $\$2,172,580 \div 46,000$ direct labor-hours = \$47.23 per direct labor-hour

Overhead per unit of product P93S = \$47.23 per direct labor-hour × 0.80 direct labor-hours per unit = \$37.78 per unit

Direct materials	\$ 21.90
Direct labor	8.80
Overhead	37.78
Unit product cost	<u><u>\$ 68.48</u></u>

6) D

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The activity rates for each activity cost pool are computed as follows:

	Total Cost	Total Activity	Activity Rate
Direct labor support	\$ 552,000	46,000 direct labor-hours	\$ 12 per direct labor-hour
Setting up machines	\$ 419,980	3,818 per setup	\$ per setup 110
Part administration	\$ 1,200,600	4,002 per part type	\$ per part 300 type

The overhead cost charged to Product N40S is:

	Activity Rate	Activity	ABC Cost
Direct labor support	\$ 12 per direct labor-hour	18,000 direct labor-hours	\$ 216,000
Setting up machines	\$ per setup 110	1,656 per setup	182,160
Part administration	\$ per part 300 type	2,116 per part type	634,800
Total			<u>\$</u> <u>1,032,960</u>

Overhead cost per unit of Product N40S = $\$1,032,960 \div 15,000 \text{ units} = \68.86 per unit

Direct materials	\$ 54.80
Direct labor	13.20
Overhead	68.86
Unit product cost	<u><u>\$ 136.86</u></u>

7) D

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Direct labor-hour calculation:

Product R78S 35,000 units × 0.4 direct labor-hours per unit	14,000
Product N32Y 10,000 units × 1.0 direct labor-hours per unit	10,000
Total direct labor-hours	<u>24,000</u>

Predetermined overhead rate = \$1,427,040 ÷ 24,000 direct labor-hours = \$59.46 per direct labor-hour

Overhead applied to each unit of product R78S = \$59.46 per direct labor-hour × 0.4 direct labor-hours per unit = \$23.78 per unit

Direct materials	\$ 27.20
Direct labor	8.80
Overhead	23.78
Unit product cost	<u>\$ 59.78</u>

8) A

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The activity rates for each activity cost pool are computed as follows:

	Total Cost	Total Activity	Activity Rate
Assembling products	\$ 672,000	24,000 direct labor-hours	\$ 28 per direct labor-hour
Preparing batches	\$ 255,840	1,968 batches	\$ per batch
			130
Product support	\$ 499,200	1,248 variations	\$ per variation
			400

The overhead cost charged to Product N32Y is:

	Activity Rate	Activity	ABC Cost
Assembling products	\$ 28 per direct labor-hour	10,000 direct labor-hours	\$ 280,000
Preparing batches	\$ per batch 130	1,152 batches	149,760
Product support	\$ per variation 400	408 variations	163,200
Total			<u>\$ 592,960</u>

Overhead per unit of Product N32Y = $\$592,960 \div 10,000$ units = \$59.30 per unit

Direct materials	\$ 54.70
Direct labor	22.00
Overhead	59.30
Unit product cost	<u>\$ 136.00</u>

9) C

Direct labor-hour calculation:

Product A 500 units × 0.4 direct labor-hours	200
Product B 1,000 units × 0.2 direct labor-hours	200
Total direct labor-hours	<u>400</u>

Predetermined overhead rate = Total estimated overhead ÷ Total estimated direct labor-hours
= $\$68,756 \div 400$ direct labor-hours = \$171.89 per direct labor-hour

10) D

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Direct labor-hour calculation:

Product A 500 units × 0.4 direct labor-hours	200
Product B 1,000 units × 0.2 direct labor-hours	200
Total direct labor-hours	400

Predetermined overhead rate = Total estimated overhead ÷ Total estimated direct labor-hours

= \$68,756 ÷ 400 direct labor-hours = \$171.89 per direct labor-hour

Overhead cost per unit of B = \$171.89 per direct labor-hour × 0.2 direct labor-hours per unit
= \$34.38 per unit

11) B

Activity rate for Activity 2 = \$22,249 ÷ 1,900 = \$11.71

12) D

The activity rates for each activity cost pool are computed as follows:

	Total Cost	Total Activity	Activity Rate
Activity 1	\$ 45,150	2,100	\$ 21.50
Activity 2	\$ 21,700	1,400	\$ 15.50
General Factory	\$ 40,800	1,200	\$ 34.00

The overhead cost charged to Product B is:

	Activity Rate	Activity	ABC Cost
Activity 1	\$ 21.50	700	\$ 15,050
Activity 2	\$ 15.50	500	7,750
General Factory	\$ 34.00	400	13,600
Total			\$ 36,400

Overhead cost per unit of Product B = \$36,400 ÷ 2,000 units = \$18.20 per unit

13) D

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The activity rates for each activity cost pool are computed as follows:

	Total Cost	Total Activity	Activity Rate
Activity 1	\$ 31,031	1,300	\$ 23.87
Activity 2	\$ 22,249	1,900	\$ 11.71
General Factory	\$ 15,476	400	\$ 38.69

The overhead cost charged to Product B is:

	Activity Rate	Activity	ABC Cost
Activity 1	\$ 23.87	300	\$ 7,161
Activity 2	\$ 11.71	300	3,513
General Factory	\$ 38.69	200	7,738
Total			<u>\$ 18,412</u>

Overhead cost per unit of Product B = $\$18,412 \div 1,000 \text{ units} = \18.41 per unit

14) C

Direct materials	\$ 540
Direct labor	600
Manufacturing overhead (1.5 × \$600)	900
Unit product cost	<u>\$ 2,040</u>
Selling price (2.00 × \$2,040)	\$ 4,080

15) D

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The activity rates are computed as follows:

Activity Cost Pools	Total Cost	Total Activity	Activity Rate
Machine Setups	\$ 150,000	400 setups	\$ 375 per setup
Quality Control	\$ 180,000	1,500 inspections	\$ 120 per inspection
Other Overhead	\$ 480,000	30,000 machine-hours	\$ 16 per machine-hour

The overhead cost charged to Model number 36 is:

Activity Cost Pools	Activity Rate	Activity	ABC Cost
Machine Setups	\$ 375 per setup	3 setups	\$ 1,125
Quality Control	\$ 120 per inspection	3 inspections	360
Other Overhead	\$ 16 per machine-hour	8 machine-hours	128
Total overhead cost			<u>\$ 1,613</u>
Direct materials	\$ 540		
Direct labor	600		
Manufacturing overhead (1.5 × \$600)	1,613		
Unit product cost	<u>\$ 2,753</u>		
Selling price (2.00 × \$2,753)	\$ 5,506		

16) A

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The activity rates are computed as follows:

Activity Cost Pools	Total Cost	Total Activity	Activity Rate
Machine Setups	\$ 150,000	400 setups	\$ 375 per setup
Quality Control	\$ 180,000	1,500 inspections	\$ 120 per inspection
Other Overhead	\$ 480,000	30,000 machine-hours	\$ 16 per machine-hour

The overhead cost charged to Model number 19 is:

Activity Cost Pools	Activity Rate	Activity	ABC Cost
Machine Setups	\$ 375 per setup	2 setups	\$ 750
Quality Control	\$ 120 per inspection	1 inspections	120
Other Overhead	\$ 16 per machine-hour	4 machine-hours	64
Total overhead cost			\$ 934

The overhead cost charged to Model number 36 is:

Activity Cost Pools	Activity Rate	Activity	ABC Cost
Machine Setups	\$ 375 per setup	3 setups	\$ 1,125
Quality Control	\$ 120 per inspection	3 inspections	360
Other Overhead	\$ 16 per machine-hour	8 machine-hours	128
Total overhead cost			\$ 1,613

The overhead cost charged to Model number 58 is:

Activity Cost Pools	Activity Rate	Activity	ABC Cost
Machine Setups	\$ 375 per setup	1 setups	\$ 375
Quality Control	\$ 120 per inspection	1 inspections	120
Other Overhead	\$ 16 per machine-hour	10 machine-hours	160
Total overhead cost			\$ 655

Traditional product costing overhead cost:

	Model number 19	Model number 36	Model number 58
Direct labor cost	\$ 810	\$ 600	\$ 220
Overhead cost (150% of direct labor cost)	\$ 1,125	\$ 900	\$ 330

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The overhead costs are the only difference in unit product costs between the traditional costing system and the activity-based costing system. Therefore, Model number 19 is the only product that has a higher unit product cost under the traditional system.

17) A

Direct labor-hour calculation:

Product N06D 49,400 units × 0.20 direct labor-hours per unit	9,880
Product M09K 16,100 units × 1.00 direct labor-hours per unit	16,100
Total direct labor-hours	<u>25,980</u>

Predetermined overhead rate = Total estimated overhead cost ÷ Total estimated direct labor-hours

= \$1,294,164 ÷ 25,980 direct labor-hours = \$49.81 per direct labor-hour

Overhead applied to product N06D = \$49.81 per direct labor-hour × 0.20 direct labor-hours per unit

= \$9.96 per unit

18) A

Direct labor-hour calculation:

Product N06D 40,000 units × 0.50 direct labor-hours per unit	20,000
Product M09K 15,000 units × 1.60 direct labor-hours per unit	24,000
Total direct labor-hours	<u>44,000</u>

Predetermined overhead rate = Total estimated overhead cost ÷ Total estimated direct labor-hours

= \$2,532,200 ÷ 44,000 direct labor-hours = \$57.55 per direct labor-hour

Overhead applied to product N06D = \$57.55 per direct labor-hour × 0.50 direct labor-hours per unit

= \$28.78 per unit

19) A

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The activity rates for each activity cost pool are computed as follows:

	Total Cost	Total Activity	Activity Rate
Supporting direct labor	\$ 518,040	28,780 direct labor-hours	\$ 18 per direct labor-hour
Setting up machines	\$ 488,176	2,347 setups	\$ 208 per setup
Parts administration	\$ 448,380	954 part types	\$ 470 per part type

The overhead cost charged to Product M09K is:

	Activity Rate	Activity	ABC Cost
Supporting direct labor	\$ 18.00 per direct labor-hour	18,600 direct labor-hours	\$ 334,800
Setting up machines	\$ 208.00 per setup	1,007 setups	209,456
Parts administration	\$ 470.00 per part type	271 part types	127,370
Total			<u>\$ 671,626</u>

Overhead applied to a unit of product M09K = $\$671,626 \div 18,600 \text{ units} = \36.11 per unit

20) A

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The activity rates for each activity cost pool are computed as follows:

	Total Cost	Total Activity	Activity Rate
Supporting direct labor	\$ 880,000	44,000 direct labor-hours	\$ 20 per direct labor-hour
Setting up machines	\$ 376,200	2,508 setups	\$ per setup 150
Parts administration	\$ 1,276,000	2,552 part types	\$ per part type 500

The overhead cost charged to Product M09K is:

	Activity Rate	Activity	ABC Cost
Supporting direct labor	\$ 20 per direct labor-hour	24,000 direct labor-hours	\$ 480,000
Setting up machines	\$ per setup 150	1,100 setups	165,000
Parts administration	\$ per part 500 type	1,012 part types	506,000
Total			<u>\$</u> <u>1,151,000</u>

Overhead applied to a unit of product M09K = $\$1,151,000 \div 15,000 \text{ units} = \76.73 per unit

21) Essay

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Traditional Manufacturing Overhead Costs Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$1,147,650 ÷ 35,000 direct labor-hours = \$32.79 per direct labor-hour

	D31X	U75X
Direct labor-hours	0.10	2.10
Predetermined overhead rate per direct labor-hour	\$ 32.79	\$ 32.79
Manufacturing overhead cost per unit	\$ 3.28	\$ 68.86

ABC Manufacturing Overhead Costs

	Estimated Overhead Cost	Total Expected Activity	Activity Rate
Assembling products	\$ 140,000	35,000 direct labor-hours	\$ 4 per direct labor-hour
Preparing batches	\$ 241,150	1,855 batches	\$ 130 per batch
Axial milling	\$ 766,500	2,555 machine-hours	\$ 300 per machine-hour

Overhead cost for D31X

	Activity Rate	Activity	ABC Cost
Assembling products	\$ 4 per direct labor-hour	3,500 direct labor-hours	\$ 14,000
Preparing batches	\$ 130 per batch	560 batches	72,800
Axial milling	\$ 300 per machine-hour	1,540 machine-hours	462,000
Total			\$ 548,800
Annual production (units)			35,000
Manufacturing overhead cost per unit			\$ 15.68

Overhead cost for U75X

	Activity Rate	Activity	ABC Cost
Assembling products	\$ 4 per direct labor-hour	31,500 direct labor-hours	\$ 126,000
Preparing batches	\$ 130 per batch	1,295 batches	168,350

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Axial milling	\$ per 300 machine- hour	1,015 machine- hours	304,500
Total			\$ 598,850
Annual production (units)			15,000
Manufacturing overhead cost per unit			\$ 39.92

22) Essay

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Traditional Unit Product Costs
 Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$2,656,000 ÷ 64,000 direct labor-hours = \$41.50 per direct labor-hour

	B40W	C63J
Direct materials	\$ 34.90	\$ 63.70
Direct labor	20.80	62.40
Manufacturing overhead (0.8 direct labor-hours × \$41.50 per direct labor-hour; 2.4 direct labor-hours × \$41.50 per direct labor-hour)	33.20	99.60
Unit product cost	\$ 88.90	\$ 225.70

ABC Manufacturing Overhead Costs

	Estimated Overhead Cost	Total Expected Activity	Activity Rate
Assembling products	\$ 1,216,000	64,000 direct labor-hours	\$ 19 per direct labor-hour
Preparing batches	\$ 480,000	4,800 batches	\$ 100 per batch
Milling	\$ 960,000	3,200 machine-hours	\$ 300 per machine-hour

Overhead cost for B40W

	Activity Rate	Activity	ABC Cost
Assembling products	\$ 19 per direct labor-hour	28,000 direct labor-hours	\$ 532,000
Preparing batches	\$ 100 per batch	2,304 batches	230,400
Milling	\$ 300 per machine-hour	1,088 machine-hours	326,400
Total			\$ 1,088,800

Overhead cost for C63J

	Activity Rate	Activity	ABC Cost
Assembling products	\$ 19 per direct labor-hour	36,000 direct labor-hours	\$ 684,000
Preparing batches	\$ 100 per batch	2,496 batches	249,600
Milling	\$ 300 per machine-hour	2,112 machine-hours	633,600

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Total			\$ 1,567,200
	B40W	C63J	
Direct materials	\$ 34.90	\$ 63.70	
Direct labor	20.80	62.40	
Manufacturing overhead	31.11	104.48	
($\$1,088,800 \div 35,000$ units; $\$1,567,200 \div 15,000$ units)			
Unit product cost	\$ 86.81	\$ 230.58	

23) Essay

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The expected total direct labor-hours during the period are computed as follows:

Product C: 2,000 units × 2.0 hours per unit	4,000 hours
Product D: 2,700 units × 0.8 hours per unit	2,160 hours
Total direct labor-hours	<u>6,160 hours</u>

Using these hours as a base, the predetermined overhead using direct labor-hours would be:

Predetermined overhead rate = Estimated total overhead cost ÷ Estimated total direct labor-hours = \$167,140 ÷ 6,160 direct labor-hours = \$27.13 per direct labor-hour

Using this overhead rate, the unit product costs are:

	Product C	Product D
Direct materials	\$ 21.50	\$ 24.10
Direct labor	24.00	9.60
Manufacturing overhead (2.0 direct labor-hours × \$27.13 per direct labor-hour; 0.8 direct labor-hours × \$27.13 per direct labor-hour)	54.27	21.71
Total unit product cost	<u>\$ 99.77</u>	<u>\$ 55.41</u>

The activity rates for each activity cost pool are as follows:

	Estimated Overhead Cost	Expected Activity	Activity Rate
Machine setups	\$ 13,630	290 setups	\$ 47.00 per setup
Purchase orders	\$ 85,750	1,750 orders	\$ 49.00 per order
General factory	\$ 67,760	6,160 direct labor-hours	\$ 11.00 per direct labor-hour

The overhead cost charged to Product C is:

	Activity Rate	Activity	Amount
Machine setups	\$ 53.00 per setup	130 setups	\$ 6,110
Purchase orders	\$ 38.00 per order	750 orders	36,750
General factory	\$ 13.00 per direct labor-hour	4,000 direct labor-hours	44,000
Total overhead cost			<u>\$ 86,860</u>

The overhead cost charged to Product D is:

	Activity Rate	Activity	Amount
Machine setups	\$ 53.00 per setup	160 setups	\$ 7,520
Purchase orders	\$ 38.00 per order	1,000 orders	49,000

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General factory	\$ 13.00 per direct	2,160 direct	23,760
	labor-hour	labor-hours	
Total overhead cost			<u>\$ 80,280</u>

Overhead cost per unit:

Product C: $\$86,860 \div 2,000 \text{ units} = \43.43 per unit.

Product D: $\$80,280 \div 2,700 \text{ units} = \29.73 per unit.

Using activity based costing, the unit product cost of each product would be:

	Product C	Product D
Direct materials	\$ 21.50	\$ 24.10
Direct labor	24.00	9.60
Manufacturing overhead	43.43	29.73
Total unit product cost	\$ 88.93	\$ 63.43

24) Essay

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Traditional Manufacturing Overhead Costs Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$1,464,480 ÷ 24,000 direct labor-hours = \$61.02 per direct labor-hour

	H16Z	P25P
Direct labor-hours	0.40	1.20
Predetermined overhead rate per direct labor-hour	\$ 61.02	\$ 61.02
Manufacturing overhead cost per unit	\$ 24.41	\$ 73.22

ABC Manufacturing Overhead Costs

	Estimated Overhead Cost	Total Expected Activity	Activity Rate
Supporting direct labor	\$ 552,000	24,000 direct labor-hours	\$ 23 per direct labor-hour
Setting up machines	\$ 132,480	1,104 setups	\$ 120 per setup
Parts administration	\$ 780,000	1,560 part types	\$ 500 per part type

Overhead cost for H16Z

	Activity Rate	Activity	ABC Cost
Supporting direct labor	\$ 23 per direct labor-hour	12,000 direct labor-hours	\$ 276,000
Setting up machines	\$ 120 per setup	864 setups	103,680
Parts administration	\$ 500 per part type	600 part types	300,000
Total			\$ 679,680
Annual production (units)			30,000
Manufacturing overhead cost per unit			\$ 22.66

Overhead cost for P25P

	Activity Rate	Activity	ABC Cost
Supporting direct labor	\$ 23 per direct labor-hour	12,000 direct labor-hours	\$ 276,000

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Setting up machines	\$ per setup	240 setups	28,800
	120		
Parts administration	\$ per part	960 part	480,000
	500 type	types	
Total			<u>\$</u>
			784,800
Annual production			<u>10,000</u>
(units)			
Manufacturing			\$ 78.48
overhead cost per			
unit			

25) Essay

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Traditional Unit Product Costs
 Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$2,663,222 ÷ 85,100 direct labor-hours = \$31.30 per direct labor-hour

	W82R	L48S
Direct materials	\$ 21.90	\$ 57.40
Direct labor	18.80	64.60
Manufacturing overhead (0.70 direct labor-hours × \$31.30 per direct labor-hour; 2.40 direct labor-hours × \$31.30 per direct labor-hour)	21.91	75.12
Unit product cost	\$ 62.61	\$ 197.12

ABC Unit Product Costs

	Estimated Overhead Cost	Total Expected Activity	Activity Rate
Supporting direct labor	\$ 595,700	85,100 direct labor-hours	\$ 7 per direct labor-hour
Setting up machines	\$ 865,062	4,369 setups	\$ 198 per setup
Parts administration	\$ 1,202,460	2,940 part types	\$ 409 per part type

Overhead cost for W82R

	Activity Rate	Activity	ABC Cost
Supporting direct labor	\$ 7 per direct labor-hour	25,340 direct labor-hours	\$ 177,380
Setting up machines	\$ 198 per setup	839 setups	166,122
Parts administration	\$ 409 per part type	1,750 part types	715,750
Total			<u>\$ 1,059,252</u>

Overhead cost for L48S

	Activity Rate	Activity	ABC Cost
Supporting direct labor	\$ 7 per direct labor-hour	59,760 direct labor-hours	\$ 418,320
Setting up machines	\$ 198 per setup	3,530 setups	698,940
Parts administration	\$ 409 per part type	1,190 part types	486,710

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Total			\$
			<u>1,603,970</u>
	W82R	L48S	
Direct materials	\$	\$ 57.40	
	21.90		
Direct labor	18.80	64.60	
Manufacturing overhead	29.26	64.42	
(1,059,252 ÷			
36,200 units;			
\$1,603,970 ÷			
24,900 units)			
Unit product cost	\$	\$ 186.42	
	69.96		

26) Essay

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Traditional Unit Product Costs Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$1,521,960 ÷ 22,000 direct labor-hours = \$69.18 per direct labor-hour

	W82R	L48S
Direct materials	\$ 11.50	\$ 62.90
Direct labor	\$ 2.00	\$ 13.00
Manufacturing overhead (0.20 direct labor-hours × \$69.18 per direct labor-hour; 1.3 direct labor-hours × \$69.18 per direct labor-hour)	13.84	89.93
Unit product cost	\$ 27.34	\$ 165.83

ABC Unit Product Costs

	Estimated Overhead Cost	Total Expected Activity	Activity Rate
Supporting direct labor	\$ 352,000	22,000 direct labor-hours	\$ 16 per direct labor-hour
Setting up machines	\$ 201,960	1,188 setups	\$ 170 per setup
Parts administration	\$ 968,000	1,936 part types	\$ 500 per part type

Overhead cost for W82R

	Activity Rate	Activity	ABC Cost
Supporting direct labor	\$ 16 per direct labor-hour	9,000 direct labor-hours	\$ 144,000
Setting up machines	\$ 170 per setup	814 setups	138,380
Parts administration	\$ 500 per part type	924 part types	462,000
Total			<u>\$ 744,380</u>

Overhead cost for L48S

	Activity Rate	Activity	ABC Cost
Supporting direct labor	\$ 16 per direct labor-hour	13,000 direct labor-hours	\$ 208,000
Setting up machines	\$ 170 per setup	374 setups	63,580

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Parts administration	\$ 500 per part type	1,012 part types	506,000
Total			<u>\$ 777,580</u>
	W82R	L48S	
Direct materials	\$ 11.50	\$ 62.90	
Direct labor	2.00	13.00	
Manufacturing overhead	16.54	77.76	
(\$744,400 ÷ 45,000 units; \$777,600 ÷ 10,000 units)			
Unit product cost	\$ 30.04	\$ 153.66	

27) Essay

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Traditional Manufacturing Overhead Costs Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$1,147,650 ÷ 35,000 direct labor-hours = \$32.79 per direct labor-hour

	D31X	U75X
Direct labor-hours	0.10	2.10
Predetermined overhead rate per direct labor-hour	\$ 32.79	\$ 32.79
Manufacturing overhead cost per unit	\$ 3.28	\$ 68.86

ABC Manufacturing Overhead Costs

	Estimated Overhead Cost	Total Expected Activity	Activity Rate
Assembling products	\$ 140,000	35,000 direct labor-hours	\$ 4 per direct labor-hour
Preparing batches	\$ 241,150	1,855 batches	\$ 130 per batch
Axial milling	\$ 766,500	2,555 machine-hours	\$ 300 per machine-hour

Overhead cost for D31X

	Activity Rate	Activity	ABC Cost
Assembling products	\$ 4 per direct labor-hour	3,500 direct labor-hours	\$ 14,000
Preparing batches	\$ 130 per batch	560 batches	72,800
Axial milling	\$ 300 per machine-hour	1,540 machine-hours	462,000
Total			\$ 548,800
Annual production (units)			35,000
Manufacturing overhead cost per unit			\$ 15.68

Overhead cost for U75X

	Activity Rate	Activity	ABC Cost
Assembling products	\$ 4 per direct labor-hour	31,500 direct labor-hours	\$ 126,000
Preparing batches	\$ 130 per batch	1,295 batches	168,350

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Axial milling	\$ per 300 machine- hour	1,015 machine- hours	304,500
Total			\$ 598,850
Annual production (units)			15,000
Manufacturing overhead cost per unit			\$ 39.92

28) Essay

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Traditional Unit Product Costs Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$2,656,000 ÷ 64,000 direct labor-hours = \$41.50 per direct labor-hour

	B40W	C63J
Direct materials	\$ 34.90	\$ 63.70
Direct labor	20.80	62.40
Manufacturing overhead (0.8 direct labor-hours × \$41.50 per direct labor-hour; 2.4 direct labor-hours × \$41.50 per direct labor-hour)	33.20	99.60
Unit product cost	\$ 88.90	\$ 225.70

ABC Manufacturing Overhead Costs

	Estimated Overhead Cost	Total Expected Activity	Activity Rate
Assembling products	\$ 1,216,000	64,000 direct labor-hours	\$ 19 per direct labor-hour
Preparing batches	\$ 480,000	4,800 batches	\$ per batch 100
Milling	\$ 960,000	3,200 machine-hours	\$ per machine-hour 300

Overhead cost for B40W

	Activity Rate	Activity	ABC Cost
Assembling products	\$ 19 per direct labor-hour	28,000 direct labor-hours	\$ 532,000
Preparing batches	\$ per batch 100	2,304 batches	230,400
Milling	\$ per machine-hour 300	1,088 machine-hours	326,400
Total			\$ 1,088,800

Overhead cost for C63J

	Activity Rate	Activity	ABC Cost
Assembling products	\$ 19 per direct labor-hour	36,000 direct labor-hours	\$ 684,000
Preparing batches	\$ 100 per batch	2,496 batches	249,600
Milling	\$ 300 per machine-hour	2,112 machine-hours	633,600

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Total			\$
			<u>1,567,200</u>
	B40W	C63J	
Direct materials	\$	\$ 63.70	
	34.90		
Direct labor	20.80	62.40	
Manufacturing overhead	31.11	104.48	
($\$1,088,800 \div 35,000$ units; $\$1,567,200 \div 15,000$ units)			
Unit product cost	\$	\$ 230.58	
	86.81		

29) Essay

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The expected total direct labor-hours during the period are computed as follows:

Product C: 2,000 units × 2.0 hours per unit	4,000 hours
Product D: 2,700 units × 0.8 hours per unit	2,160 hours
Total direct labor-hours	<u>6,160 hours</u>

Using these hours as a base, the predetermined overhead using direct labor-hours would be:

Predetermined overhead rate = Estimated total overhead cost ÷ Estimated total direct labor-hours = \$167,140 ÷ 6,160 direct labor-hours = \$27.13 per direct labor-hour

Using this overhead rate, the unit product costs are:

	Product C	Product D
Direct materials	\$ 21.50	\$ 24.10
Direct labor	24.00	9.60
Manufacturing overhead (2.0 direct labor-hours × \$27.13 per direct labor-hour; 0.8 direct labor-hours × \$27.13 per direct labor-hour)	54.27	21.71
Total unit product cost	<u>\$ 99.77</u>	<u>\$ 55.41</u>

The activity rates for each activity cost pool are as follows:

	Estimated Overhead Cost	Expected Activity	Activity Rate
Machine setups	\$ 13,630	290 setups	\$ 47.00 per setup
Purchase orders	\$ 85,750	1,750 orders	\$ 49.00 per order
General factory	\$ 67,760	6,160 direct labor-hours	\$ 11.00 per direct labor-hour

The overhead cost charged to Product C is:

	Activity Rate	Activity	Amount
Machine setups	\$ 53.00 per setup	130 setups	\$ 6,110
Purchase orders	\$ 38.00 per order	750 orders	36,750
General factory	\$ 13.00 per direct labor-hour	4,000 direct labor-hours	44,000
Total overhead cost			<u>\$ 86,860</u>

The overhead cost charged to Product D is:

	Activity Rate	Activity	Amount
Machine setups	\$ 53.00 per setup	160 setups	\$ 7,520

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Purchase orders	\$ 38.00	per order	1,000	orders	49,000
General factory	\$ 13.00	per direct	2,160	direct	23,760
		labor-hour		labor-hours	
Total overhead cost					<u>\$ 80,280</u>

Overhead cost per unit:

Product C: $\$86,860 \div 2,000 \text{ units} = \43.43 per unit.

Product D: $\$80,280 \div 2,700 \text{ units} = \29.73 per unit.

Using activity based costing, the unit product cost of each product would be:

	Product C	Product D
Direct materials	\$ 21.50	\$ 24.10
Direct labor	24.00	9.60
Manufacturing overhead	43.43	29.73
Total unit product cost	\$ 88.93	\$ 63.43

30) Essay

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Traditional Manufacturing Overhead Costs
 Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$1,464,480 ÷ 24,000 direct labor-hours = \$61.02 per direct labor-hour

	H16Z	P25P
Direct labor-hours	0.40	1.20
Predetermined overhead rate per direct labor-hour	\$ 61.02	\$ 61.02
Manufacturing overhead cost per unit	\$ 24.41	\$ 73.22

ABC Manufacturing Overhead Costs

	Estimated Overhead Cost	Total Expected Activity	Activity Rate
Supporting direct labor	\$ 552,000	24,000 direct labor-hours	\$ 23 per direct labor-hour
Setting up machines	\$ 132,480	1,104 setups	\$ 120 per setup
Parts administration	\$ 780,000	1,560 part types	\$ 500 per part type

Overhead cost for H16Z

	Activity Rate	Activity	ABC Cost
Supporting direct labor	\$ 23 per direct labor-hour	12,000 direct labor-hours	\$ 276,000
Setting up machines	\$ 120 per setup	864 setups	103,680
Parts administration	\$ 500 per part type	600 part types	300,000
Total			\$ 679,680
Annual production (units)			30,000
Manufacturing overhead cost per unit			\$ 22.66

Overhead cost for P25P

	Activity Rate	Activity	ABC Cost
Supporting direct labor	\$ 23 per direct labor-hour	12,000 direct labor-hours	\$ 276,000

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Setting up machines	\$ per setup	240 setups	28,800
	120		
Parts administration	\$ per part	960 part	480,000
	500 type	types	
Total			<u>\$</u>
			784,800
Annual production			<u>10,000</u>
(units)			
Manufacturing			\$ 78.48
overhead cost per			
unit			

31) Essay

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Traditional Unit Product Costs Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$1,521,960 ÷ 22,000 direct labor-hours = \$69.18 per direct labor-hour

	W82R	L48S
Direct materials	\$ 11.50	\$ 62.90
Direct labor	\$ 2.00	\$ 13.00
Manufacturing overhead (0.20 direct labor-hours × \$69.18 per direct labor-hour; 1.3 direct labor-hours × \$69.18 per direct labor-hour)	13.84	89.93
Unit product cost	\$ 27.34	\$ 165.83

ABC Unit Product Costs

	Estimated Overhead Cost	Total Expected Activity	Activity Rate
Supporting direct labor	\$ 352,000	22,000 direct labor-hours	\$ 16 per direct labor-hour
Setting up machines	\$ 201,960	1,188 setups	\$ 170 per setup
Parts administration	\$ 968,000	1,936 part types	\$ 500 per part type

Overhead cost for W82R

	Activity Rate	Activity	ABC Cost
Supporting direct labor	\$ 16 per direct labor-hour	9,000 direct labor-hours	\$ 144,000
Setting up machines	\$ 170 per setup	814 setups	138,380
Parts administration	\$ 500 per part type	924 part types	462,000
Total			<u>\$ 744,380</u>

Overhead cost for L48S

	Activity Rate	Activity	ABC Cost
Supporting direct labor	\$ 16 per direct labor-hour	13,000 direct labor-hours	\$ 208,000
Setting up machines	\$ 170 per setup	374 setups	63,580

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Parts administration	\$ 500 per part type	1,012 part types	506,000
Total			<u>\$ 777,580</u>
	W82R	L48S	
Direct materials	\$ 11.50	\$ 62.90	
Direct labor	2.00	13.00	
Manufacturing overhead	16.54	77.76	
(\$744,400 ÷ 45,000 units; \$777,600 ÷ 10,000 units)			
Unit product cost	\$ 30.04	\$ 153.66	

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CORRECT ANSWERS ARE LOCATED IN THE 2ND HALF OF THIS DOC.

MULTIPLE CHOICE - Choose the one alternative that best completes the statement or answers the question.

- 1) Which of the following statements is true?
 1. When the fixed costs of capacity are spread over the estimated activity of the period rather than the level of activity at capacity, the units that are produced must shoulder the costs of unused capacity.
 2. When the predetermined overhead rate is based on the level of activity at capacity, an item called the Cost of Unused Capacity may appear to be treated as a period expense on income statements prepared for internal management use.
 3. If the predetermined overhead rate is based on the estimated level of activity for the current period, then products will be charged only for the capacity that they use and will not be charged for the capacity they don't use.
 - A) Only statement I is true.
 - B) Only statement III is true.
 - C) Statements I and II are true.
 - D) None of the statements are true.

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- 2) Risser Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated jointer. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$ 20,000
Capacity of the jointer	400 hours

Actual results:

Sales	\$ 61,800
Direct materials	\$ 15,400
Direct labor	\$ 13,850
Actual total fixed manufacturing overhead	\$ 20,000
Selling and administrative expense	\$ 9,800
Actual hours of jointer use	380 hours

The gross margin that would be reported on the income statement prepared for internal management purposes would be closest to:

- A) \$3,750
- B) \$13,550
- C) \$23,350
- D) \$61,800

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- 3) Risser Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated jointer. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$ 14,256
Capacity of the jointer	240 hours

Actual results:

Sales	\$ 62,310
Direct materials	\$ 14,100
Direct labor	\$ 16,000
Actual total fixed manufacturing overhead	\$ 14,256
Selling and administrative expense	\$ 8,900
Actual hours of jointer use	220 hours

The gross margin that would be reported on the income statement prepared for internal management purposes would be closest to:

- A) \$10,242
- B) \$19,142
- C) \$17,954
- D) \$62,310

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- 4) The management of Garn Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity rather than on the estimated activity for the coming year. The Corporation's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated activity for the upcoming year is 55,200 machine-hours. Capacity is 71,200 machine-hours. All of the manufacturing overhead is fixed and is \$3,132,800 per year within the range of 55,200 to 71,200 machine-hours. If the Corporation bases its predetermined overhead rate on capacity but the actual level of activity for the year turns out to be 56,000 machine-hours, the cost of unused capacity shown on the income statement prepared for internal management purposes would be closest to:
- A) \$44,754
 - B) \$713,554
 - C) \$668,800
 - D) \$45,403
- 5) The management of Garn Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity rather than on the estimated activity for the coming year. The Corporation's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated activity for the upcoming year is 69,000 machine-hours. Capacity is 85,000 machine-hours. All of the manufacturing overhead is fixed and is \$4,105,500 per year within the range of 69,000 to 85,000 machine-hours. If the Corporation bases its predetermined overhead rate on capacity but the actual level of activity for the year turns out to be 69,700 machine-hours, the cost of unused capacity shown on the income statement prepared for internal management purposes would be closest to:
- A) \$772,800
 - B) \$780,640
 - C) \$738,990
 - D) \$41,650

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- 6) The management of Krach Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 23,000 machine-hours. Capacity is 26,000 machine-hours and the actual level of activity for the year is assumed to be 13,000 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$65,000 per year. For simplicity, it is assumed that this is the estimated manufacturing overhead for the year as well as the manufacturing overhead at capacity. It is further assumed that this is also the actual amount of manufacturing overhead for the year.

If the company bases its predetermined overhead rate on capacity, what would be the cost of unused capacity reported on the income statement prepared for internal management purposes?

- A) \$3,000
- B) \$32,500
- C) \$25,000
- D) \$57,500

- 7) The management of Krach Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 10,000 machine-hours. Capacity is 12,000 machine-hours and the actual level of activity for the year is assumed to be 9,500 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$12,000 per year. For simplicity, it is assumed that this is the estimated manufacturing overhead for the year as well as the manufacturing overhead at capacity. It is further assumed that this is also the actual amount of manufacturing overhead for the year.

If the company bases its predetermined overhead rate on capacity, what would be the cost of unused capacity reported on the income statement prepared for internal management purposes?

- A) \$2,000
- B) \$2,500
- C) \$1,900
- D) \$600

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- 8) The management of Winterroth Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The Corporation's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours.

	Estimated at the Beginning of the Year	Capacity	Actual
Machine-hours	52,000	62,000	48,000
Manufacturing overhead	\$ 1,842,020	\$ 1,842,020	\$ 1,842,020

If the Corporation bases its predetermined overhead rate on capacity, then as shown on the income statement prepared for internal management purposes, the cost of unused capacity would be closest to:

- A) \$297,100
- B) \$415,940
- C) \$162,000
- D) \$141,694

- 9) The management of Winterroth Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The Corporation's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours.

	Estimated at the Beginning of the Year	Capacity	Actual
Machine-hours	53,000	63,000	49,000
Manufacturing overhead	\$ 1,803,060	\$ 1,803,060	\$ 1,803,060

If the Corporation bases its predetermined overhead rate on capacity, then as shown on the income statement prepared for internal management purposes, the cost of unused capacity would be closest to:

- A) \$286,200
- B) \$400,680
- C) \$264,600
- D) \$136,080

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- 10) Dowty Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated lathe. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$ 19,964
Capacity of the lathe	280 hours

Actual results:

Actual total fixed manufacturing overhead	\$ 19,964
Actual hours of lathe use	230 hours

The manufacturing overhead applied is closest to:

- A) \$19,964
- B) \$16,399
- C) \$7,639
- D) \$9,300

- 11) Rapier Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated jointer. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$ 3,496
Capacity of the jointer	190 hours

Actual results:

Actual total fixed manufacturing overhead	\$ 3,496
Actual hours of jointer use	160 hours

The predetermined overhead rate based on hours at capacity is closest to:

- A) \$59.35 per hour
- B) \$50.10 per hour
- C) \$21.85 per hour
- D) \$18.40 per hour

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- 12) Rapier Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated jointer. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$ 3,740
Capacity of the jointer	200 hours

Actual results:

Actual total fixed manufacturing overhead	\$ 3,740
Actual hours of jointer use	170 hours

The predetermined overhead rate based on hours at capacity is closest to:

- A) \$58.24 per hour
- B) \$49.50 per hour
- C) \$22.00 per hour
- D) \$18.70 per hour

- 13) Traeger Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated bandsaw. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$ 27,962
Capacity of the bandsaw	310 hours

Actual results:

Actual total fixed manufacturing overhead	\$ 27,962
Actual hours of bandsaw use	290 hours

The cost of unused capacity that would be reported as a period expense on the income statement prepared for internal management purposes would be closest to:

- A) \$1,804
- B) \$16,236
- C) \$0
- D) \$18,040

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- 14) Traeger Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated bandsaw. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead \$ 26,936

Capacity of the bandsaw 280 hours

Actual results:

Actual total fixed manufacturing overhead \$ 26,936

Actual hours of bandsaw use 260 hours

The cost of unused capacity that would be reported as a period expense on the income statement prepared for internal management purposes would be closest to:

- A) \$1,924
- B) \$18,136
- C) \$0
- D) \$18,765

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- 15) Mausser Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated jointer. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$ 10,040
Capacity of the jointer	200 hours

Actual results:

Sales	\$ 75,300
Direct materials	\$ 12,650
Direct labor	\$ 12,800
Actual total fixed manufacturing overhead	\$ 10,040
Selling and administrative expense	\$ 9,500
Actual hours of jointer use	170 hours

The cost of unused capacity that would be reported as a period expense on the income statement prepared for internal management purposes would be closest to:

- A) \$0
- B) \$540
- C) \$1,506
- D) \$2,046

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- 16) Mausser Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated jointer. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$ 11,648
Capacity of the jointer	280 hours

Actual results:

Sales	\$ 52,760
Direct materials	\$ 13,300
Direct labor	\$ 16,000
Actual total fixed manufacturing overhead	\$ 11,648
Selling and administrative expense	\$ 9,300
Actual hours of jointer use	260 hours

The cost of unused capacity that would be reported as a period expense on the income statement prepared for internal management purposes would be closest to:

- A) \$0
- B) \$2,348
- C) \$832
- D) \$3,012

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- 17) Mausser Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated jointer. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$ 11,648
Capacity of the jointer	280 hours

Actual results:

Sales	\$ 52,760
Direct materials	\$ 13,300
Direct labor	\$ 16,000
Actual total fixed manufacturing overhead	\$ 11,648
Selling and administrative expense	\$ 9,300
Actual hours of jointer use	260 hours

The gross margin that would be reported on the income statement prepared for internal management purposes would be closest to:

- A) \$52,760
- B) \$3,344
- C) \$12,644
- D) \$11,812

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18) Coble Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated shaper. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$ 33,075
Capacity of the shaper	270 hours

Actual results:

Sales	\$ 79,268
Direct materials	\$ 12,200
Direct labor	\$ 17,400
Actual total fixed manufacturing overhead	\$ 33,075
Selling and administrative expense	\$ 8,100
Actual hours of shaper use	250 hours

The predetermined overhead rate based on hours at capacity is closest to:

- A) \$30.00 per hour
- B) \$122.50 per hour
- C) \$32.40 per hour
- D) \$132.30 per hour

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- 19) Coble Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated shaper. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$ 66,880
Capacity of the shaper	380 hours

Actual results:

Sales	\$ 115,000
Direct materials	\$ 11,400
Direct labor	\$ 16,200
Actual total fixed manufacturing overhead	\$ 66,880
Selling and administrative expense	\$ 4,900
Actual hours of shaper use	360 hours

The manufacturing overhead applied is closest to:

- A) \$6,053
- B) \$66,880
- C) \$4,900
- D) \$63,360

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20) Coble Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated shaper. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$ 33,075
Capacity of the shaper	270 hours

Actual results:

Sales	\$ 79,268
Direct materials	\$ 12,200
Direct labor	\$ 17,400
Actual total fixed manufacturing overhead	\$ 33,075
Selling and administrative expense	\$ 8,100
Actual hours of shaper use	250 hours

The manufacturing overhead applied is closest to:

- A) \$7,500
- B) \$33,075
- C) \$8,100
- D) \$30,625

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21) Coble Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated shaper. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$ 30,510
Capacity of the shaper	270 hours

Actual results:

Sales	\$ 104,000
Direct materials	\$ 11,500
Direct labor	\$ 16,500
Actual total fixed manufacturing overhead	\$ 30,510
Selling and administrative expense	\$ 3,800
Actual hours of shaper use	230 hours

The cost of unused capacity that would be reported as a period expense on the income statement prepared for internal management purposes would be closest to:

- A) \$4,520
- B) \$0
- C) \$26,710
- D) \$30,510

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22) Coble Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated shaper. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$ 33,075
Capacity of the shaper	270 hours

Actual results:

Sales	\$ 79,268
Direct materials	\$ 12,200
Direct labor	\$ 17,400
Actual total fixed manufacturing overhead	\$ 33,075
Selling and administrative expense	\$ 8,100
Actual hours of shaper use	250 hours

The cost of unused capacity that would be reported as a period expense on the income statement prepared for internal management purposes would be closest to:

- A) \$2,450
- B) \$0
- C) \$24,975
- D) \$25,575

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- 23) Coble Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated shaper. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$ 85,950
Capacity of the shaper	450 hours

Actual results:

Sales	\$ 157,000
Direct materials	\$ 11,800
Direct labor	\$ 16,900
Actual total fixed manufacturing overhead	\$ 85,950
Selling and administrative expense	\$ 5,300
Actual hours of shaper use	410 hours

The gross margin that would be reported on the income statement prepared for internal management purposes would be closest to:

- A) \$49,990
- B) \$37,050
- C) \$44,690
- D) \$157,000

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- 24) Coble Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated shaper. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$ 33,075
Capacity of the shaper	270 hours

Actual results:

Sales	\$ 79,268
Direct materials	\$ 12,200
Direct labor	\$ 17,400
Actual total fixed manufacturing overhead	\$ 33,075
Selling and administrative expense	\$ 8,100
Actual hours of shaper use	250 hours

The gross margin that would be reported on the income statement prepared for internal management purposes would be closest to:

- A) \$19,043
- B) \$16,593
- C) \$10,943
- D) \$79,268

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- 25) Dunnings Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated router. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$ 10,998
Capacity of the router	180 hours

Actual results:

Actual total fixed manufacturing overhead	\$ 10,998
Actual hours of router use	130 hours

The predetermined overhead rate based on hours at capacity is closest to:

- A) \$84.60 per hour
- B) \$61.10 per hour
- C) \$61.54 per hour
- D) \$44.44 per hour

- 26) Dunnings Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated router. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$ 10,998
Capacity of the router	180 hours

Actual results:

Actual total fixed manufacturing overhead	\$ 10,998
Actual hours of router use	130 hours

The manufacturing overhead applied is closest to:

- A) \$7,943
- B) \$8,000
- C) \$5,778
- D) \$10,998

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- 27) The management of Bullinger Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 27,000 machine-hours. Capacity is 30,000 machine-hours and the actual level of activity for the year is assumed to be 25,700 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$35,910 per year. For simplicity, it is assumed that this is the estimated manufacturing overhead for the year as well as the manufacturing overhead at capacity. It is further assumed that this is also the actual amount of manufacturing overhead for the year.

If the company bases its predetermined overhead rate on the estimated amount of the allocation base for the upcoming year, then the predetermined overhead rate is closest to:

- A) \$1.33 per machine-hour
- B) \$1.50 per machine-hour
- C) \$1.20 per machine-hour
- D) \$1.40 per machine-hour

- 28) The management of Bullinger Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 9,000 machine-hours. Capacity is 12,000 machine-hours and the actual level of activity for the year is assumed to be 7,700 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$11,880 per year. For simplicity, it is assumed that this is the estimated manufacturing overhead for the year as well as the manufacturing overhead at capacity. It is further assumed that this is also the actual amount of manufacturing overhead for the year.

If the company bases its predetermined overhead rate on the estimated amount of the allocation base for the upcoming year, then the predetermined overhead rate is closest to:

- A) \$1.32 per machine-hour
- B) \$1.49 per machine-hour
- C) \$0.99 per machine-hour
- D) \$1.54 per machine-hour

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- 29) The management of Bullinger Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 17,000 machine-hours. Capacity is 20,000 machine-hours and the actual level of activity for the year is assumed to be 15,700 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$25,500 per year. For simplicity, it is assumed that this is the estimated manufacturing overhead for the year as well as the manufacturing overhead at capacity. It is further assumed that this is also the actual amount of manufacturing overhead for the year.

If the company bases its predetermined overhead rate on capacity, then the predetermined overhead rate is closest to:

- A) \$1.62 per machine-hour
- B) \$1.50 per machine-hour
- C) \$1.67 per machine-hour
- D) \$1.28 per machine-hour

- 30) The management of Bullinger Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 9,000 machine-hours. Capacity is 12,000 machine-hours and the actual level of activity for the year is assumed to be 7,700 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$11,880 per year. For simplicity, it is assumed that this is the estimated manufacturing overhead for the year as well as the manufacturing overhead at capacity. It is further assumed that this is also the actual amount of manufacturing overhead for the year.

If the company bases its predetermined overhead rate on capacity, then the predetermined overhead rate is closest to:

- A) \$1.54 per machine-hour
- B) \$1.32 per machine-hour
- C) \$1.49 per machine-hour
- D) \$0.99 per machine-hour

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- 31) The management of Bullinger Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 12,000 machine-hours. Capacity is 15,000 machine-hours and the actual level of activity for the year is assumed to be 10,700 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$16,560 per year. For simplicity, it is assumed that this is the estimated manufacturing overhead for the year as well as the manufacturing overhead at capacity. It is further assumed that this is also the actual amount of manufacturing overhead for the year.

If the company bases its predetermined overhead rate on capacity, what would be the cost of unused capacity reported on the income statement prepared for internal management purposes?

Note: Round intermediate calculations to 2 decimal places.

- A) \$3,060.00
- B) \$2,996.00
- C) \$1,794.00
- D) \$4,790.00

- 32) The management of Bullinger Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 9,000 machine-hours. Capacity is 12,000 machine-hours and the actual level of activity for the year is assumed to be 7,700 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$11,880 per year. For simplicity, it is assumed that this is the estimated manufacturing overhead for the year as well as the manufacturing overhead at capacity. It is further assumed that this is also the actual amount of manufacturing overhead for the year.

If the company bases its predetermined overhead rate on capacity, what would be the cost of unused capacity reported on the income statement prepared for internal management purposes?

- A) \$2,970
- B) \$2,541
- C) \$1,716
- D) \$4,257

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- 33) Zackery Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated lathe. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$ 7,452
Capacity of the lathe	230 hours

Actual results:

Actual total fixed manufacturing overhead	\$ 7,452
Actual hours of lathe use	180 hours

The manufacturing overhead applied is closest to:

- A) \$9,900
- B) \$5,832
- C) \$7,748
- D) \$7,452

- 34) Zackery Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated lathe. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$ 7,452
Capacity of the lathe	230 hours

Actual results:

Actual total fixed manufacturing overhead	\$ 7,452
Actual hours of lathe use	180 hours

The cost of unused capacity that would be reported as a period expense on the income statement prepared for internal management purposes would be closest to:

- A) \$2,448
- B) \$296
- C) \$0
- D) \$1,620

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- 35) The management of Holdaway Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 78,000 machine-hours. Capacity is 87,000 machine-hours and the actual level of activity for the year is assumed to be 73,900 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$5,701,110 per year. For simplicity, it is assumed that this is the estimated manufacturing overhead for the year as well as the manufacturing overhead at capacity. It is further assumed that this is also the actual amount of manufacturing overhead for the year.

If the company bases its predetermined overhead rate on capacity, then the predetermined overhead rate is closest to:

- A) \$73.09 per machine-hour
- B) \$71.26 per machine-hour
- C) \$77.15 per machine-hour
- D) \$65.53 per machine-hour

- 36) The management of Holdaway Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 79,000 machine-hours. Capacity is 88,000 machine-hours and the actual level of activity for the year is assumed to be 74,900 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$5,700,640 per year. For simplicity, it is assumed that this is the estimated manufacturing overhead for the year as well as the manufacturing overhead at capacity. It is further assumed that this is also the actual amount of manufacturing overhead for the year.

If the company bases its predetermined overhead rate on capacity, then the predetermined overhead rate is closest to:

- A) \$72.16 per machine-hour
- B) \$70.38 per machine-hour
- C) \$76.11 per machine-hour
- D) \$64.78 per machine-hour

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37) The management of Holdaway Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 79,000 machine-hours. Capacity is 88,000 machine-hours and the actual level of activity for the year is assumed to be 74,900 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$5,700,640 per year. For simplicity, it is assumed that this is the estimated manufacturing overhead for the year as well as the manufacturing overhead at capacity. It is further assumed that this is also the actual amount of manufacturing overhead for the year.

If the company bases its predetermined overhead rate on capacity, what would be the cost of unused capacity reported on the income statement prepared for internal management purposes?

- A) \$295,856
- B) \$848,618
- C) \$583,020
- D) \$552,762

38) The management of Featheringham Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 59,800 machine-hours. Capacity is 72,800 machine-hours and the actual level of activity for the year is assumed to be 56,800 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$2,835,560 per year. It is assumed that a number of jobs were worked on during the year, one of which was Job Z77W which required 520 machine-hours.

If the company bases its predetermined overhead rate on capacity, then the predetermined overhead rate is closest to:

- A) \$47.42 per machine-hour
- B) \$38.95 per machine-hour
- C) \$50.38 per machine-hour
- D) \$45.88 per machine-hour

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39) The management of Featheringham Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 62,000 machine-hours. Capacity is 75,000 machine-hours and the actual level of activity for the year is assumed to be 59,000 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$2,836,500 per year. It is assumed that a number of jobs were worked on during the year, one of which was Job Z77W which required 410 machine-hours.

If the company bases its predetermined overhead rate on capacity, then the predetermined overhead rate is closest to:

- A) \$48.08 per machine-hour
- B) \$37.82 per machine-hour
- C) \$48.91 per machine-hour
- D) \$45.75 per machine-hour

40) The management of Featheringham Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 67,400 machine-hours. Capacity is 80,400 machine-hours and the actual level of activity for the year is assumed to be 64,400 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$2,836,512 per year. It is assumed that a number of jobs were worked on during the year, one of which was Job Z77W which required 450 machine-hours.

If the company bases its predetermined overhead rate on capacity, then the amount of manufacturing overhead charged to job Z77W is closest to:

- A) \$15,876.00
- B) \$19,224.00
- C) \$20,160.20
- D) \$19,820.35

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- 41) The management of Featheringham Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 62,000 machine-hours. Capacity is 75,000 machine-hours and the actual level of activity for the year is assumed to be 59,000 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$2,836,500 per year. It is assumed that a number of jobs were worked on during the year, one of which was Job Z77W which required 410 machine-hours.

If the company bases its predetermined overhead rate on capacity, then the amount of manufacturing overhead charged to job Z77W is closest to:

- A) \$15,506.20
- B) \$19,065.00
- C) \$20,051.12
- D) \$19,711.27

- 42) The management of Featheringham Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 62,000 machine-hours. Capacity is 75,000 machine-hours and the actual level of activity for the year is assumed to be 59,000 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$2,836,500 per year. It is assumed that a number of jobs were worked on during the year, one of which was Job Z77W which required 410 machine-hours.

If the company bases its predetermined overhead rate on capacity, what would be the cost of unused capacity reported on the income statement prepared for internal management purposes?

- A) \$137,250
- B) \$605,120
- C) \$491,660
- D) \$467,870

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- 43) The management of Plitt Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 78,000 machine-hours. Capacity is 101,000 machine-hours and the actual level of activity for the year is assumed to be 80,500 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$4,726,800 per year. It is assumed that a number of jobs were worked on during the year, one of which was Job Q20L which required 370 machine-hours.

If the company bases its predetermined overhead rate on the estimated amount of the allocation base for the upcoming year, then the predetermined overhead rate is closest to:

- A) \$58.72 per machine-hour
- B) \$45.35 per machine-hour
- C) \$60.60 per machine-hour
- D) \$46.80 per machine-hour

- 44) The management of Plitt Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 69,000 machine-hours. Capacity is 82,000 machine-hours and the actual level of activity for the year is assumed to be 72,400 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$4,130,340 per year. It is assumed that a number of jobs were worked on during the year, one of which was Job Q20L which required 470 machine-hours.

If the company bases its predetermined overhead rate on the estimated amount of the allocation base for the upcoming year, then the predetermined overhead rate is closest to:

- A) \$57.05 per machine-hour
- B) \$60.83 per machine-hour
- C) \$59.86 per machine-hour
- D) \$50.37 per machine-hour

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- 45) The management of Plitt Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 55,000 machine-hours. Capacity is 76,000 machine-hours and the actual level of activity for the year is assumed to be 71,000 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$2,508,000 per year. It is assumed that a number of jobs were worked on during the year, one of which was Job Q20L which required 410 machine-hours.

If the company bases its predetermined overhead rate on the estimated amount of the allocation base for the upcoming year, then the amount of manufacturing overhead charged to Job Q20L is closest to:

- A) \$13,530.00
- B) \$14,482.82
- C) \$10,480.99
- D) \$18,696.00

- 46) The management of Plitt Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 69,000 machine-hours. Capacity is 82,000 machine-hours and the actual level of activity for the year is assumed to be 72,400 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$4,130,340 per year. It is assumed that a number of jobs were worked on during the year, one of which was Job Q20L which required 470 machine-hours.

If the company bases its predetermined overhead rate on the estimated amount of the allocation base for the upcoming year, then the amount of manufacturing overhead charged to Job Q20L is closest to:

- A) \$23,673.90
- B) \$26,812.98
- C) \$28,589.98
- D) \$28,134.20

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- 47) The management of Plitt Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 69,000 machine-hours. Capacity is 82,000 machine-hours and the actual level of activity for the year is assumed to be 72,400 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$4,130,340 per year. It is assumed that a number of jobs were worked on during the year, one of which was Job Q20L which required 470 machine-hours.

If the company bases its predetermined overhead rate on capacity, then the predetermined overhead rate is closest to:

- A) \$57.05 per machine-hour
- B) \$59.86 per machine-hour
- C) \$50.37 per machine-hour
- D) \$60.83 per machine-hour

- 48) The management of Plitt Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 69,000 machine-hours. Capacity is 92,000 machine-hours and the actual level of activity for the year is assumed to be 75,000 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$772,800 per year. It is assumed that a number of jobs were worked on during the year, one of which was Job Q20L which required 380 machine-hours.

If the company bases its predetermined overhead rate on capacity, then the amount of manufacturing overhead charged to Job Q20L is closest to:

- A) \$4,256.00
- B) \$2,936.64
- C) \$3,915.52
- D) \$3,192.00

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- 49) The management of Plitt Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 69,000 machine-hours. Capacity is 82,000 machine-hours and the actual level of activity for the year is assumed to be 72,400 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$4,130,340 per year. It is assumed that a number of jobs were worked on during the year, one of which was Job Q20L which required 470 machine-hours.

If the company bases its predetermined overhead rate on capacity, then the amount of manufacturing overhead charged to Job Q20L is closest to:

- A) \$28,589.98
- B) \$26,592.60
- C) \$26,812.98
- D) \$23,673.90

- 50) The management of Plitt Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 61,000 machine-hours. Capacity is 76,000 machine-hours and the actual level of activity for the year is assumed to be 65,000 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$2,688,880 per year. It is assumed that a number of jobs were worked on during the year, one of which was Job Q20L which required 410 machine-hours.

If the company bases its predetermined overhead rate on capacity, what would be the cost of unused capacity reported on the income statement prepared for internal management purposes?

- A) \$530,700
- B) \$176,320
- C) \$165,470
- D) \$389,180

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51) The management of Plitt Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 69,000 machine-hours. Capacity is 82,000 machine-hours and the actual level of activity for the year is assumed to be 72,400 machine-hours. All of the manufacturing overhead is fixed and both the estimated amount at the beginning of the year and the actual amount at the end of the year are assumed to be \$4,130,340 per year. It is assumed that a number of jobs were worked on during the year, one of which was Job Q20L which required 470 machine-hours.

If the company bases its predetermined overhead rate on capacity, what would be the cost of unused capacity reported on the income statement prepared for internal management purposes?

- A) \$654,810
- B) \$687,076
- C) \$547,669
- D) \$483,552

ESSAY. Write your answer in the space provided or on a separate sheet of paper.

52) The management of Koteck Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity rather than on the estimated amount of activity for the year. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 8,000 machine-hours. In addition, capacity is 10,000 machine-hours and the actual activity for the year is 8,700 machine-hours. All of the manufacturing overhead is fixed and is \$6,400 per year. Job L77S, which required 220 machine-hours, is one of the jobs worked on during the year.

Required:

- a. Determine the predetermined overhead rate if the predetermined overhead rate is based on activity at capacity.
- b. Determine how much overhead would be applied to Job L77S if the predetermined overhead rate is based on activity at capacity.
- c. Determine the cost of unused capacity for the year if the predetermined overhead rate is based on activity at capacity.

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- 53) The management of Michaeli Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity rather than on the estimated amount of activity for the year. The company's controller has provided an example to illustrate how this new system would work.

Estimated activity for the upcoming year	31,000 machine-hours
Capacity	43,000 machine-hours
Actual activity for the year	32,900 machine-hours
Manufacturing overhead (all fixed)	\$ 799,800 per year

Required: Determine the cost of unused capacity for the year if the predetermined overhead rate is based on activity at capacity.

- 54) The management of Michaeli Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity rather than on the estimated amount of activity for the year. The company's controller has provided an example to illustrate how this new system would work.

Estimated activity for the upcoming year	43,000 machine-hours
Capacity	50,000 machine-hours
Actual activity for the year	45,400 machine-hours
Manufacturing overhead (all fixed)	\$ 989,000 per year

Required: Determine the cost of unused capacity for the year if the predetermined overhead rate is based on activity at capacity.

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55) The management of Schneiter Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity rather than on the estimated amount of activity for the year. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 42,000 machine-hours. In addition, capacity is 46,000 machine-hours and the actual activity for the year is 43,000 machine-hours. All of the manufacturing overhead is fixed and is \$734,160 per year.

Required:

- a. Determine the predetermined overhead rate if the predetermined overhead rate is based on activity at capacity.
- b. Determine the cost of unused capacity for the year if the predetermined overhead rate is based on activity at capacity.

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56) Marder Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated jointer. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$ 24,500
Capacity of the jointer	250 hours

Actual results:

Sales	\$ 71,706
Direct materials	\$ 12,500
Direct labor	\$ 17,900
Actual total fixed manufacturing overhead	\$ 24,500
Selling and administrative expense	\$ 9,700
Actual hours of jointer use	200 hours

Required:

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- Calculate the predetermined overhead rate based on capacity.
- Calculate the manufacturing overhead applied.
- Determine the Gross Margin for the month.
- Calculate the cost of unused capacity.

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- 57) The management of Bouyer Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity rather than on the estimated amount of activity for the year. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 34,000 machine-hours. In addition, capacity is 37,000 machine-hours and the actual activity for the year is 34,700 machine-hours. All of the manufacturing overhead is fixed and is \$377,400 per year.
- Required:** Determine the cost of unused capacity for the year if the predetermined overhead rate is based on activity at capacity.

- 58) The management of Buelow Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity rather than on the estimated amount of activity for the year. The company's controller has provided an example to illustrate how this new system would work.

Estimated activity for the upcoming year	76,000 machine-hours
Capacity	94,000 machine-hours
Actual activity for the year	82,800 machine-hours
Manufacturing overhead (all fixed)	\$ 5,572,320 per year

Job Q58A, which required 130 machine-hours, is one of the jobs worked on during the year.

Required:

- Determine the predetermined overhead rate if the predetermined overhead rate is based on the estimated activity for the upcoming year.
- Determine how much overhead would be applied to Job Q58A if the predetermined overhead rate is based on estimated activity for the upcoming year.
- Determine the predetermined overhead rate if the predetermined overhead rate is based on the activity at capacity.
- Determine how much overhead would be applied to Job Q58A if the predetermined overhead rate is based on activity at capacity.
- Determine the cost of unused capacity for the year if the predetermined overhead rate is based on activity at capacity.

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- 59) Knipple Woodworking Corporation produces fine cabinets. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated bandsaw. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$ 24,288
Capacity of the bandsaw	240 hours

Actual results:

Sales	\$ 71,473
Direct materials	\$ 10,400
Direct labor	\$ 17,300
Actual total fixed manufacturing overhead	\$ 24,288
Selling and administrative expense	\$ 9,100
Actual hours of bandsaw use	230 hours

Required: Prepare an income statement following the Example in Appendix 2B in which any cost of unused capacity is directly recorded on the income statement as a period expense.

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- 60) The management of Wrights Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity rather than on the estimated amount of activity for the year. The company's controller has provided an example to illustrate how this new system would work.

Estimated activity for the upcoming year	15,000 machine-hours
Capacity	18,000 machine-hours
Actual activity for the year	15,800 machine-hours
Manufacturing overhead (all fixed)	\$ 43,200 per year

Required:

- Determine the predetermined overhead rate if the predetermined overhead rate is based on the estimated activity for the upcoming year.
- Determine the cost of unused capacity for the year if the predetermined overhead rate is based on activity at capacity.

- 61) Danaher Woodworking Corporation produces fine furniture. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated lathe. Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$ 38,800
Capacity of the lathe	400 hours
Actual results:	

Actual total fixed manufacturing overhead	\$ 38,800
Actual hours of lathe use	360 hours

Required:

- Calculate the predetermined overhead rate based on capacity.
- Calculate the manufacturing overhead applied.
- Calculate the cost of unused capacity.

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62) Danaher Woodworking Corporation produces fine furniture. The company uses a job-order costing system in which its predetermined overhead rate is based on capacity. The capacity of the factory is determined by the capacity of its constraint, which is an automated lathe.

Additional information is provided below for the most recent month:

Estimates at the beginning of the month:

Estimated total fixed manufacturing overhead	\$ 22,701
Capacity of the lathe	230 hours

Actual results:

Actual total fixed manufacturing overhead	\$ 22,701
Actual hours of lathe use	210 hours

Required:

- Calculate the predetermined overhead rate based on capacity.
- Calculate the manufacturing overhead applied.
- Calculate the cost of unused capacity.

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63) The management of Kotek Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity rather than on the estimated amount of activity for the year. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 8,000 machine-hours. In addition, capacity is 10,000 machine-hours and the actual activity for the year is 8,700 machine-hours. All of the manufacturing overhead is fixed and is \$6,400 per year. Job L77S, which required 220 machine-hours, is one of the jobs worked on during the year.

Required:

- Determine the predetermined overhead rate if the predetermined overhead rate is based on activity at capacity.
- Determine how much overhead would be applied to Job L77S if the predetermined overhead rate is based on activity at capacity.
- Determine the cost of unused capacity for the year if the predetermined overhead rate is based on activity at capacity.

64) The management of Schneiter Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity rather than on the estimated amount of activity for the year. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 42,000 machine-hours. In addition, capacity is 46,000 machine-hours and the actual activity for the year is 43,000 machine-hours. All of the manufacturing overhead is fixed and is \$734,160 per year.

Required:

- Determine the predetermined overhead rate if the predetermined overhead rate is based on activity at capacity.
- Determine the cost of unused capacity for the year if the predetermined overhead rate is based on activity at capacity.

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- 65) The management of Bouyer Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity rather than on the estimated amount of activity for the year. The company's controller has provided an example to illustrate how this new system would work. In this example, the allocation base is machine-hours and the estimated amount of the allocation base for the upcoming year is 34,000 machine-hours. In addition, capacity is 37,000 machine-hours and the actual activity for the year is 34,700 machine-hours. All of the manufacturing overhead is fixed and is \$377,400 per year.
- Required:** Determine the cost of unused capacity for the year if the predetermined overhead rate is based on activity at capacity.

- 66) The management of Buelow Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity rather than on the estimated amount of activity for the year. The company's controller has provided an example to illustrate how this new system would work.

Estimated activity for the upcoming year	76,000 machine-hours
Capacity	94,000 machine-hours
Actual activity for the year	82,800 machine-hours
Manufacturing overhead (all fixed)	\$ 5,572,320 per year

Job Q58A, which required 130 machine-hours, is one of the jobs worked on during the year.

Required:

- Determine the predetermined overhead rate if the predetermined overhead rate is based on the estimated activity for the upcoming year.
- Determine how much overhead would be applied to Job Q58A if the predetermined overhead rate is based on estimated activity for the upcoming year.
- Determine the predetermined overhead rate if the predetermined overhead rate is based on the activity at capacity.
- Determine how much overhead would be applied to Job Q58A if the predetermined overhead rate is based on activity at capacity.
- Determine the cost of unused capacity for the year if the predetermined overhead rate is based on activity at capacity.

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- 67) The management of Wrights Corporation would like to investigate the possibility of basing its predetermined overhead rate on activity at capacity rather than on the estimated amount of activity for the year. The company's controller has provided an example to illustrate how this new system would work.

Estimated activity for the upcoming year	15,000 machine-hours
Capacity	18,000 machine-hours
Actual activity for the year	15,800 machine-hours
Manufacturing overhead (all fixed)	\$ 43,200 per year

Required:

- Determine the predetermined overhead rate if the predetermined overhead rate is based on the estimated activity for the upcoming year.
- Determine the cost of unused capacity for the year if the predetermined overhead rate is based on activity at capacity.

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Answer Key

Test name: Chapter 02B

1) C

2) B

Predetermined overhead rate based on capacity = Estimated total fixed manufacturing overhead cost at capacity ÷ Estimated total amount of the allocation base at capacity = \$20,000 ÷ 400

hours = \$50.00 per hour

Sales			\$ 61,800
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Cost of Goods Sold:

Direct materials		\$ 15,400	
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Direct labor		13,850	
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Manufacturing overhead applied		19,000	48,250
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380 hours × \$50.00 per hour			
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Gross margin			\$ 13,550
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3) B

Predetermined overhead rate based on capacity = Estimated total fixed manufacturing overhead cost at capacity ÷ Estimated total amount of the allocation base at capacity = \$14,256 ÷ 240

hours = \$59.40 per hour

Sales			\$ 62,310
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Cost of Goods Sold:

Direct materials		\$ 14,100	
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Direct labor		16,000	
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Manufacturing overhead applied		13,068	43,168
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220 hours × \$59.40 per hour			
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Gross margin			\$ 19,142
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4) C

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Predetermined overhead rate = Estimated total manufacturing overhead at capacity ÷ Estimated total amount of the allocation base at capacity = \$3,132,800 ÷ 71,200 machine-hours = \$44.00 per machine-hour

Actual manufacturing overhead cost incurred	\$ 3,132,800	
Manufacturing overhead applied to jobs:		
Predetermined overhead rate	\$ 44.00	per machine-hour
Actual hours	56,000	machine-hours
Manufacturing overhead applied to jobs	\$ 2,464,000	
Cost of unused capacity	\$ 668,800	

5) C

Predetermined overhead rate = Estimated total manufacturing overhead at capacity ÷ Estimated total amount of the allocation base at capacity = \$4,105,500 ÷ 85,000 machine-hours = \$48.30 per machine-hour

Actual manufacturing overhead cost incurred	\$ 4,105,500	
Manufacturing overhead applied to jobs:		
Predetermined overhead rate	\$ 48.30	per machine-hour
Actual hours	69,700	machine-hours
Manufacturing overhead applied to jobs	\$ 3,366,510	
Cost of unused capacity	\$ 738,990	

6) B

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Predetermined overhead rate = Estimated total manufacturing overhead at capacity ÷ Estimated total amount of the allocation base at capacity = \$65,000 ÷ 26,000 machine-hours = \$2.50 per machine-hour

Actual manufacturing overhead cost incurred	\$ 65,000	
Manufacturing overhead applied to jobs:		
Predetermined overhead rate	\$ 2.50 per machine-hour	
Actual hours	13,000 machine-hours	
Manufacturing overhead applied to jobs	\$ 32,500	
Cost of unused capacity		
	\$ 32,500	

7) B

Predetermined overhead rate = Estimated total manufacturing overhead at capacity ÷ Estimated total amount of the allocation base at capacity = \$12,000 ÷ 12,000 machine-hours = \$1.00 per machine-hour

Actual manufacturing overhead cost incurred	\$ 12,000	
Manufacturing overhead applied to jobs:		
Predetermined overhead rate	\$ 1.00 per machine-hour	
Actual hours	9,500 machine-hours	
Manufacturing overhead applied to jobs	\$ 9,500	
Cost of unused capacity		
	\$ 2,500	

8) B

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Predetermined overhead rate = Estimated total manufacturing overhead at capacity ÷ Estimated total amount of the allocation base at capacity = \$1,842,020 ÷ 62,000 machine-hours = \$29.71 per machine-hour

Actual manufacturing overhead cost incurred	\$ 1,842,020	
Manufacturing overhead applied to jobs:		
Predetermined overhead rate	\$ 29.71 per machine-hour	
Actual hours	48,000 machine-hours	
Manufacturing overhead applied to jobs	\$ 1,426,080	
Cost of unused capacity	\$ 415,940	

9) B

Predetermined overhead rate = Estimated total manufacturing overhead at capacity ÷ Estimated total amount of the allocation base at capacity = \$1,803,060 ÷ 63,000 machine-hours = \$28.62 per machine-hour

Actual manufacturing overhead cost incurred	\$ 1,803,060	
Manufacturing overhead applied to jobs:		
Predetermined overhead rate	\$ 28.62 per machine-hour	
Actual hours	49,000 machine-hours	
Manufacturing overhead applied to jobs	\$ 1,402,380	
Cost of unused capacity	\$ 400,680	

10) B

Predetermined overhead rate based on capacity = Estimated total fixed manufacturing overhead cost at capacity ÷ Estimated total amount of the allocation base at capacity = \$19,964 ÷ 280 hours = \$71.30 per hour

Manufacturing overhead applied = Predetermined overhead rate × Actual amount of the allocation base = 230 hours × \$71.30 per hour = \$16,399

11) D

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Predetermined overhead rate based on capacity = Estimated total fixed manufacturing overhead cost at capacity ÷ Estimated total amount of the allocation base at capacity = \$3,496 ÷ 190 hours = \$18.40 per hour

12) D

Predetermined overhead rate based on capacity = Estimated total fixed manufacturing overhead cost at capacity ÷ Estimated total amount of the allocation base at capacity = \$3,740 ÷ 200 hours = \$18.70 per hour

13) A

Predetermined overhead rate based on capacity = Estimated total fixed manufacturing overhead cost at capacity ÷ Estimated total amount of the allocation base at capacity = \$27,962 ÷ 310 hours = \$90.20 per hour

Cost of unused capacity = (Amount of the allocation base at capacity – Actual amount of the allocation base) × Predetermined overhead rate = (310 hours – 290 hours) × \$90.20 per hour = \$1,804

14) A

Predetermined overhead rate based on capacity = Estimated total fixed manufacturing overhead cost at capacity ÷ Estimated total amount of the allocation base at capacity = \$26,936 ÷ 280 hours = \$96.20 per hour

Cost of unused capacity = (Amount of the allocation base at capacity – Actual amount of the allocation base) × Predetermined overhead rate = (280 hours – 260 hours) × \$96.20 per hour = \$1,924

15) C

Predetermined overhead rate based on capacity = Estimated total fixed manufacturing overhead cost at capacity ÷ Estimated total amount of the allocation base at capacity = \$10,040 ÷ 200 hours = \$50.20 per hour

Cost of unused capacity = (Amount of the allocation base at capacity – Actual amount of the allocation base) × Predetermined overhead rate = (200 hours – 170 hours) × \$50.20 per hour = \$1,506

16) C

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Predetermined overhead rate based on capacity = Estimated total fixed manufacturing overhead cost at capacity ÷ Estimated total amount of the allocation base at capacity = \$11,648 ÷ 280 hours = \$41.60 per hour

Cost of unused capacity = (Amount of the allocation base at capacity – Actual amount of the allocation base) × Predetermined overhead rate = (280 hours – 260 hours) × \$41.60 per hour = \$832

17) C

Predetermined overhead rate based on capacity = Estimated total fixed manufacturing overhead cost at capacity ÷ Estimated total amount of the allocation base at capacity = \$11,648 ÷ 280 hours = \$41.60 per hour

Sales			\$ 52,760
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Cost of Goods Sold:

Direct materials		\$ 13,300	
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Direct labor		16,000	
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Manufacturing overhead applied		10,816	40,116
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260 hours × \$41.60 per hour			
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Gross margin	TBEXAM.COM		\$ 12,644
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18) B

Predetermined overhead rate based on capacity = Estimated total fixed manufacturing overhead cost at capacity ÷ Estimated total amount of the allocation base at capacity = \$33,075 ÷ 270 hours = \$122.50 per hour

19) D

Predetermined overhead rate based on capacity = Estimated total fixed manufacturing overhead cost at capacity ÷ Estimated total amount of the allocation base at capacity = \$66,880 ÷ 380 hours = \$176 per hour

Manufacturing overhead applied = Predetermined overhead rate × Actual amount of the allocation base = 360 hours × \$176 per hour = \$63,360

20) D

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Predetermined overhead rate based on capacity = Estimated total fixed manufacturing overhead cost at capacity ÷ Estimated total amount of the allocation base at capacity = \$33,075 ÷ 270 hours = \$122.50 per hour

Manufacturing overhead applied = Predetermined overhead rate × Actual amount of the allocation base = 250 hours × \$122.50 per hour = \$30,625

21) A

Predetermined overhead rate based on capacity = Estimated total fixed manufacturing overhead cost at capacity ÷ Estimated total amount of the allocation base at capacity = \$30,510 ÷ 270 hours = \$113 per hour

Cost of unused capacity = (Amount of the allocation base at capacity – Actual amount of the allocation base) × Predetermined overhead rate = (270 hours – 230 hours) × \$113 per hour = \$4,520

22) A

Predetermined overhead rate based on capacity = Estimated total fixed manufacturing overhead cost at capacity ÷ Estimated total amount of the allocation base at capacity = \$33,075 ÷ 270 hours = \$122.50 per hour

Cost of unused capacity = (Amount of the allocation base at capacity – Actual amount of the allocation base) × Predetermined overhead rate = (270 hours – 250 hours) × \$122.50 per hour = \$2,450

23) A

Predetermined overhead rate based on capacity = Estimated total fixed manufacturing overhead cost at capacity ÷ Estimated total amount of the allocation base at capacity = \$85,950 ÷ 450 hours = \$191 per hour

Sales		\$ 157,000
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Cost of Goods Sold:

Direct materials	\$ 11,800	
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Direct labor	16,900	
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Manufacturing overhead applied	78,310	107,010
410 hours × \$191.00 per hour		

Gross margin		<u>\$ 49,990</u>
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24) A

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Predetermined overhead rate based on capacity = Estimated total fixed manufacturing overhead cost at capacity ÷ Estimated total amount of the allocation base at capacity = \$33,075 ÷ 270 hours = \$122.50 per hour

Sales \$ 79,268

Cost of Goods Sold:

Direct materials \$ 12,200

Direct labor 17,400

Manufacturing overhead applied 30,625 60,225

250 hours × \$122.50 per hour

Gross margin \$ 19,043

25) B

Predetermined overhead rate based on capacity = Estimated total fixed manufacturing overhead cost at capacity ÷ Estimated total amount of the allocation base at capacity = \$10,998 ÷ 180 hours = \$61.10 per hour

26) A

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Predetermined overhead rate based on capacity = Estimated total fixed manufacturing overhead cost at capacity ÷ Estimated total amount of the allocation base at capacity = \$10,998 ÷ 180 hours = \$61.10 per hour

Manufacturing overhead applied = Predetermined overhead rate × Actual amount of the allocation base = 130 hours × \$61.10 per hour = \$7,943

27) A

Predetermined overhead rate = Estimated total manufacturing overhead ÷ Estimated total amount of the allocation base = \$35,910 ÷ 27,000 machine-hours = \$1.33 per machine-hour

28) A

Predetermined overhead rate = Estimated total manufacturing overhead ÷ Estimated total amount of the allocation base = \$11,880 ÷ 9,000 machine-hours = \$1.32 per machine-hour

29) D

Predetermined overhead rate = Estimated total manufacturing overhead at capacity ÷ Estimated total amount of the allocation base at capacity = \$25,500 ÷ 20,000 machine-hours = \$1.28 per machine-hour

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30) D

Predetermined overhead rate = Estimated total manufacturing overhead at capacity ÷ Estimated total amount of the allocation base at capacity = \$11,880 ÷ 12,000 machine-hours = \$0.99 per machine-hour

31) D

Predetermined overhead rate = Estimated total manufacturing overhead at capacity ÷ Estimated total amount of the allocation base at capacity = \$16,560 ÷ 15,000 machine-hours = \$1.10 per machine-hour

Actual manufacturing overhead cost incurred	\$ 16,560
Manufacturing overhead applied to jobs:	
Predetermined overhead rate	\$ 1.10 per machine-hour
Actual hours	10,700 machine-hours
Manufacturing overhead applied to jobs	\$ 11,770
Cost of unused capacity	<u>\$ 4,790</u>

32) D

Predetermined overhead rate = Estimated total manufacturing overhead at capacity ÷ Estimated total amount of the allocation base at capacity = \$11,880 ÷ 12,000 machine-hours = \$0.99 per machine-hour

Actual manufacturing overhead cost incurred	\$ 11,880
Manufacturing overhead applied to jobs:	
Predetermined overhead rate	\$ 0.99 per machine-hour
Actual hours	7,700 machine-hours
Manufacturing overhead applied to jobs	\$ 7,623
Cost of unused capacity	<u>\$ 4,257</u>

33) B

Predetermined overhead rate based on capacity = Estimated total fixed manufacturing overhead cost at capacity ÷ Estimated total amount of the allocation base at capacity = \$7,452 ÷ 230 hours = \$32.40 per hour

Manufacturing overhead applied = Predetermined overhead rate × Actual amount of the allocation base = 180 hours × \$32.40 per hour = \$5,832

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34) D

Predetermined overhead rate based on capacity = Estimated total fixed manufacturing overhead cost at capacity ÷ Estimated total amount of the allocation base at capacity = $\$7,452 \div 230 \text{ hours} = \32.40 per hour

Cost of unused capacity = (Amount of the allocation base at capacity – Actual amount of the allocation base) × Predetermined overhead rate = $(230 \text{ hours} - 180 \text{ hours}) \times \$32.40 \text{ per hour} = \$1,620$

35) D

Predetermined overhead rate = Estimated total manufacturing overhead at capacity ÷ Estimated total amount of the allocation base at capacity = $\$5,701,110 \div 87,000 \text{ machine-hours} = \$65.53 \text{ per machine-hour}$

36) D

Predetermined overhead rate = Estimated total manufacturing overhead at capacity ÷ Estimated total amount of the allocation base at capacity = $\$5,700,640 \div 88,000 \text{ machine-hours} = \$64.78 \text{ per machine-hour}$

37) B

Predetermined overhead rate = Estimated total manufacturing overhead at capacity ÷ Estimated total amount of the allocation base at capacity = $\$5,700,640 \div 88,000 \text{ machine-hours} = \$64.78 \text{ per machine-hour}$

Actual manufacturing overhead cost incurred	\$ 5,700,640
Manufacturing overhead applied to jobs:	
Predetermined overhead rate	\$ 64.78 per machine-hour
Actual hours	74,900 machine-hours
Manufacturing overhead applied to jobs	\$ 4,852,022
Cost of unused capacity	\$ 848,618

38) B

Predetermined overhead rate = Estimated total manufacturing overhead at capacity ÷ Estimated total amount of the allocation base at capacity = $\$2,835,560 \div 72,800 \text{ machine-hours} = \$38.95 \text{ per machine-hour}$

39) B

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Predetermined overhead rate = Estimated total manufacturing overhead at capacity ÷ Estimated total amount of the allocation base at capacity = \$2,836,500 ÷ 75,000 machine-hours = \$37.82 per machine-hour

40) A

Predetermined overhead rate = Estimated total manufacturing overhead at capacity ÷ Estimated total amount of the allocation base at capacity = \$2,836,512 ÷ 80,400 machine-hours = \$35.28 per machine-hour

Manufacturing overhead applied to Job

Z77W

Number of hours for the job 450 machine-hours

Predetermined overhead rate \$ 35.28 per machine-hour

Manufacturing overhead applied to the job \$ 15,876.00

41) A

Predetermined overhead rate = Estimated total manufacturing overhead at capacity ÷ Estimated total amount of the allocation base at capacity = \$2,836,500 ÷ 75,000 machine-hours = \$37.82 per machine-hour

Manufacturing overhead applied to Job

Z77W

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Number of hours for the job 410 machine-hours

Predetermined overhead rate \$ 37.82 per machine-hour

Manufacturing overhead applied to the job \$ 15,506.20

42) B

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Predetermined overhead rate = Estimated total manufacturing overhead at capacity ÷ Estimated total amount of the allocation base at capacity = \$2,836,500 ÷ 75,000 machine-hours = \$37.82 per machine-hour

Actual manufacturing overhead cost incurred	\$ 2,836,500
Manufacturing overhead applied to jobs:	
Predetermined overhead rate	\$ 37.82 per machine-hour
Actual hours	59,000 machine-hours
Manufacturing overhead applied to jobs	\$ 2,231,380
Cost of unused capacity	
	\$ 605,120

43) C

Predetermined overhead rate = Estimated total manufacturing overhead ÷ Estimated total amount of the allocation base = \$4,726,800 ÷ 78,000 machine-hours = \$60.60 per machine-hour

44) C

Predetermined overhead rate = Estimated total manufacturing overhead ÷ Estimated total amount of the allocation base = \$4,130,340 ÷ 69,000 machine-hours = \$59.86 per machine-hour

45) D

Manufacturing overhead applied = Predetermined overhead rate × Actual amount of the allocation base = \$45.60 per machine-hour × 410 machine-hours = \$18,696.00

46) D

Manufacturing overhead applied = Predetermined overhead rate × Actual amount of the allocation base = \$59.86 per machine-hour × 470 machine-hours = \$28,134.20

47) C

Predetermined overhead rate = Estimated total manufacturing overhead at capacity ÷ Estimated total amount of the allocation base at capacity = \$4,130,340 ÷ 82,000 machine-hours = \$50.37 per machine-hour

48) D

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Predetermined overhead rate = Estimated total manufacturing overhead at capacity ÷ Estimated total amount of the allocation base at capacity = \$772,800 ÷ 92,000 machine-hours = \$8.40 per machine-hour

Manufacturing overhead applied = Predetermined overhead rate × Actual amount of the allocation base = \$8.40 per machine-hour × 380 machine-hours = \$3,192.00

49) D

Predetermined overhead rate = Estimated total manufacturing overhead at capacity ÷ Estimated total amount of the allocation base at capacity = \$4,130,340 ÷ 82,000 machine-hours = \$50.37 per machine-hour

Manufacturing overhead applied = Predetermined overhead rate × Actual amount of the allocation base = \$50.37 per machine-hour × 470 machine-hours = \$23,673.90

50) D

Predetermined overhead rate = Estimated total manufacturing overhead at capacity ÷ Estimated total amount of the allocation base at capacity = \$2,688,880 ÷ 76,000 machine-hours = \$35.38 per machine-hour

Actual manufacturing overhead cost incurred	\$ 2,688,880	
Manufacturing overhead applied to jobs:		
Predetermined overhead rate	\$ 35.38 per machine-hour	
Actual hours	65,000 machine-hours	
Manufacturing overhead applied to jobs	\$ 2,299,700	
Cost of unused capacity		\$ 389,180

51) D

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Predetermined overhead rate = Estimated total manufacturing overhead at capacity ÷ Estimated total amount of the allocation base at capacity = \$4,130,340 ÷ 82,000 machine-hours = \$50.37 per machine-hour

Actual manufacturing overhead cost incurred	\$ 4,130,340	
Manufacturing overhead applied to jobs:		
Predetermined overhead rate	\$ 50.37 per machine-hour	
Actual hours	72,400 machine-hours	
Manufacturing overhead applied to jobs	\$ 3,646,788	
Cost of unused capacity	\$ 483,552	

52) Essay

Predetermined overhead rate = Estimated total manufacturing overhead at capacity ÷ Estimated total amount of the allocation base at capacity = \$6,400 ÷ 10,000 machine-hours = \$0.64 per machine-hour
Manufacturing overhead applied to Job L77S

Number of hours for the job	220 machine-hours	
Predetermined overhead rate	\$ 0.64 per machine-hour	
Manufacturing overhead applied to the job	\$ 140.80	
Actual manufacturing overhead cost incurred	\$ 6,400	
Manufacturing overhead applied to jobs:		
Predetermined overhead rate	\$ 0.64 per machine-hour	
Actual hours	8,700 machine-hours	
Manufacturing overhead applied to jobs	\$ 5,568	
Cost of unused capacity	\$ 832	

53) Essay

Managerial Accounting Edition 18 by Garrison

Predetermined overhead rate = Estimated total manufacturing overhead at capacity ÷ Estimated total amount of the allocation base at capacity = \$799,800 ÷ 43,000 machine-hours = \$18.60 per machine-hour

Actual manufacturing overhead cost incurred	\$ 799,800	
Manufacturing overhead applied to jobs:		
Predetermined overhead rate	\$ 18.60	per machine-hour
Actual hours	32,900	machine-hours
Manufacturing overhead applied to jobs	\$ 611,940	
Cost of unused capacity	\$ 187,860	

54) Essay

Predetermined overhead rate = Estimated total manufacturing overhead ÷ Estimated total amount of the allocation base = \$989,000 ÷ 50,000 machine-hours = \$19.78 per machine-hour

Actual manufacturing overhead cost incurred	\$ 989,000	
Manufacturing overhead applied to jobs:		
Predetermined overhead rate	\$ 19.78	per machine-hour
Actual hours	45,400	machine-hours
Manufacturing overhead applied to jobs	\$ 898,012	
Cost of unused capacity	\$ 90,988	

55) Essay

Managerial Accounting Edition 18 by Garrison

Predetermined overhead rate = Estimated total manufacturing overhead at capacity ÷ Estimated total amount of the allocation base at capacity = \$734,160 ÷ 46,000 machine-hours = \$15.96 per machine-hour

Actual manufacturing overhead cost incurred	\$ 734,160	
Manufacturing overhead applied to jobs:		
Predetermined overhead rate	\$ 15.96 per machine-hour	
Actual hours	43,000 machine-hours	
Manufacturing overhead applied to jobs	\$ 686,280	
Cost of unused capacity		\$ 47,880

56) Essay

Estimated total fixed manufacturing overhead	\$ 24,500	
Estimated activity level	250 hours	
Predetermined overhead rate	\$ 98.00 per hour	
Sales	TBEXAM.COM	\$ 71,706
Cost of Goods Sold:		
Direct materials	\$ 12,500	
Direct labor	17,900	
Manufacturing overhead applied	19,600	50,000
Gross margin		21,706

57) Essay

Managerial Accounting Edition 18 by Garrison

Predetermined overhead rate = Estimated total manufacturing overhead at capacity ÷ Estimated total amount of the allocation base at capacity = \$377,400 ÷ 37,000 machine-hours = \$10.20 per machine-hour

Actual manufacturing overhead cost incurred	\$ 377,400	
Manufacturing overhead applied to jobs:		
Predetermined overhead rate	\$ 10.20 per machine-hour	
Actual hours	34,700 machine-hours	
Manufacturing overhead applied to jobs	\$ 353,940	
Cost of unused capacity		
		\$ 23,460

58) Essay

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Managerial Accounting Edition 18 by Garrison

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$5,572,320 ÷ 76,000 machine-hours = \$73.32 per machine-hour

Manufacturing overhead applied to Job Q58A

Number of hours for the job	130 machine-hours
Predetermined overhead rate	\$ 73.32 per machine-hour
Manufacturing overhead applied to the job	\$ 9,531.60

Manufacturing overhead applied to Job Q58A

Number of hours for the job	130 machine-hours
Predetermined overhead rate	\$ 59.28 per machine-hour

Manufacturing overhead applied to the job \$ 7,706.40

Actual manufacturing overhead cost incurred \$ 5,572,320

Manufacturing overhead applied to jobs:

Predetermined overhead rate \$ 59.28 per machine-hour

Actual hours 82,800 machine-hours

Manufacturing overhead applied to jobs \$ 4,908,384

Cost of unused capacity \$ 663,936

59) Essay

Managerial Accounting Edition 18 by Garrison

Estimated total fixed manufacturing overhead	\$ 24,288	
Estimated activity level	240 hours	
Predetermined overhead rate	\$ 101.20 per hour	
Sales		\$ 71,473

Cost of Goods Sold:

Direct materials	\$ 10,400	
Direct labor	17,300	
Manufacturing overhead applied 230 hours × \$101.20 per hour	23,276	50,976
Gross margin		<u>20,497</u>
Cost of unused capacity (240 hours - 230 hours) × \$101.20 per hour	\$ 1,012	
Selling and administrative expense	9,100	10,112
Net operating income		<u><u>\$ 10,385</u></u>

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60) Essay

Predetermined overhead rate = Estimated total manufacturing overhead ÷ Estimated total amount of the allocation base = \$43,200 ÷ 15,000 machine-hours = \$2.88 per machine-hour

Predetermined overhead rate = Estimated total manufacturing overhead ÷ Estimated total amount of the allocation base = \$43,200 ÷ 18,000 machine-hours = \$2.40 per machine-hour

Actual manufacturing overhead cost incurred	\$ 43,200	
Manufacturing overhead applied to jobs:		
Predetermined overhead rate	\$ 2.40 per machine-hour	
Actual hours	15,800 machine-hours	
Manufacturing overhead applied to jobs	\$ 37,920	
Cost of unused capacity	<u>\$ 5,280</u>	

61) Essay

Managerial Accounting Edition 18 by Garrison

Estimated total fixed manufacturing overhead	\$ 38,800
Estimated activity level	400 hours
Predetermined overhead rate	\$ 97 per hour

62) Essay

Estimated total fixed manufacturing overhead	\$ 22,701
Estimated activity level	230 hours
Predetermined overhead rate	\$ 98.70 per hour

63) Essay

Predetermined overhead rate = Estimated total manufacturing overhead at capacity ÷ Estimated total amount of the allocation base at capacity = \$6,400 ÷ 10,000 machine-hours = \$0.64 per machine-hour
Manufacturing overhead applied to Job L77S

Number of hours for the job	220 machine-hours
Predetermined overhead rate	\$ 0.64 per machine-hour
Manufacturing overhead applied to the job	\$ 140.80
Actual manufacturing overhead cost incurred	\$ 6,400
Manufacturing overhead applied to jobs:	
Predetermined overhead rate	\$ 0.64 per machine-hour
Actual hours	8,700 machine-hours
Manufacturing overhead applied to jobs	\$ 5,568
Cost of unused capacity	
	\$ 832

64) Essay

Managerial Accounting Edition 18 by Garrison

Predetermined overhead rate = Estimated total manufacturing overhead at capacity ÷ Estimated total amount of the allocation base at capacity = \$734,160 ÷ 46,000 machine-hours = \$15.96 per machine-hour

Actual manufacturing overhead cost incurred	\$ 734,160	
Manufacturing overhead applied to jobs:		
Predetermined overhead rate	\$ 15.96 per machine-hour	
Actual hours	43,000 machine-hours	
Manufacturing overhead applied to jobs	\$ 686,280	
Cost of unused capacity		
		\$ 47,880

65) Essay

Predetermined overhead rate = Estimated total manufacturing overhead at capacity ÷ Estimated total amount of the allocation base at capacity = \$377,400 ÷ 37,000 machine-hours = \$10.20 per machine-hour

Actual manufacturing overhead cost incurred	\$ 377,400	
Manufacturing overhead applied to jobs:		
Predetermined overhead rate	\$ 10.20 per machine-hour	
Actual hours	34,700 machine-hours	
Manufacturing overhead applied to jobs	\$ 353,940	
Cost of unused capacity		
		\$ 23,460

66) Essay

Managerial Accounting Edition 18 by Garrison

Predetermined overhead rate = Estimated total manufacturing overhead cost ÷ Estimated total amount of the allocation base = \$5,572,320 ÷ 76,000 machine-hours = \$73.32 per machine-hour

Manufacturing overhead applied to Job

Q58A

Number of hours for the job	130 machine-hours
Predetermined overhead rate	\$ 73.32 per machine-hour
Manufacturing overhead applied to the job	\$ 9,531.60

Manufacturing overhead applied to Job

Q58A

Number of hours for the job	130 machine-hours
Predetermined overhead rate	\$ 59.28 per machine-hour

Manufacturing overhead applied to the job \$ 7,706.40

Actual manufacturing overhead cost incurred \$ 5,572,320

Manufacturing overhead applied to jobs:

Predetermined overhead rate \$ 59.28 per machine-hour

Actual hours 82,800 machine-hours

Manufacturing overhead applied to jobs \$ 4,908,384

Cost of unused capacity \$ 663,936

67) Essay

Managerial Accounting Edition 18 by Garrison

Predetermined overhead rate = Estimated total manufacturing overhead ÷ Estimated total amount of the allocation base = \$43,200 ÷ 15,000 machine-hours = \$2.88 per machine-hour

Predetermined overhead rate = Estimated total manufacturing overhead ÷ Estimated total amount of the allocation base = \$43,200 ÷ 18,000 machine-hours = \$2.40 per machine-hour

Actual manufacturing overhead cost incurred	\$ 43,200
Manufacturing overhead applied to jobs:	
Predetermined overhead rate	\$ 2.40 per machine-hour
Actual hours	15,800 machine-hours
Manufacturing overhead applied to jobs	\$ 37,920
Cost of unused capacity	\$ 5,280

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