Horngrens Financial and Managerial Accounting The Managerial Chapters 6th edition Miller Nobles Solutions Manual

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Chapter 16
Introduction to Managerial Accounting

Review Questions

1. The primary purpose of managerial accounting is to provide information to help managers plan, direct, control, and make decisions.

2. Financial accounting and managerial accounting differ on the following 6 dimensions: (1) primary users, (2) purpose of information, (3) focus and time dimension of the information, (4) rules and restrictions, (5) scope of information, and (6) behavioral.

3. Line positions are directly involved in providing goods or services to customers. Staff positions support line positions.

4. Planning means choosing goals and deciding how to achieve them. Directing involves running the day-to-day operations of a business. Controlling is the process of monitoring operations and keeping the company on track.

5. The four IMA standards of ethical practice and a description of each follow.

I. Competence.

- Maintain an appropriate level of professional expertise by continually developing knowledge and skills.
- Perform professional duties in accordance with relevant laws, regulations, and technical standards.
- Provide decision support information and recommendations that are accurate, clear, concise, and timely.
- Recognize and communicate professional limitations or other constraints that preclude responsible judgment or successful performance of an activity.

II. Confidentiality.

- Keep information confidential except when disclosure is authorized or legally required.
- Inform all relevant parties regarding appropriate use of confidential information. Monitor subordinates' activities to ensure compliance.
- Refrain from using confidential information for unethical or illegal advantage.

III. Integrity.

- Mitigate actual conflicts of interest, regularly communicate with business associates to avoid apparent conflicts of interest. Advise all parties of any potential conflicts.
- Refrain from engaging in any conduct that would prejudice carrying out duties ethically.
- Abstain from engaging in or supporting any activity that might discredit the profession.

5, **cont.**

IV. Credibility.

- Communicate information fairly and objectively.
- Disclose all relevant information that could reasonably be expected to influence an intended user's understanding of the reports, analyses, or recommendations.
- Disclose delays or deficiencies in information, timeliness, processing, or internal controls in conformance with organization policy and/or applicable law.

6. Service companies sell time, skills, and knowledge. Examples of service companies include phone service companies, banks, cleaning service companies, accounting firms, law firms, medical physicians, and online auction services.

7. Merchandising companies resell products they buy from suppliers. Merchandisers keep an inventory of products, and managers are accountable for the purchasing, storage, and sale of the products. Examples of merchandising companies include toy stores, grocery stores, and clothing stores.

8. Merchandising companies resell products they previously bought from suppliers, whereas manufacturing companies use labor, equipment, supplies, and facilities to convert raw materials into new finished products. In contrast to merchandising companies, manufacturing companies have a broad range of production activities that require tracking costs on three kinds of inventory.

9. The three inventory accounts used by manufacturing companies are Raw Materials Inventory, Work-in-Process Inventory, and Finished Goods Inventory.

Raw Materials Inventory includes materials used to manufacture a product. Work-in-Process Inventory includes goods that have been started in the manufacturing process but are not yet complete. Finished Goods Inventory includes completed goods that have not yet been sold.

10. A direct cost is a cost that can be easily and cost-effectively traced to a cost object (which is anything for which managers want a separate measurement of cost). An indirect cost is a cost that cannot be easily or cost-effectively traced to a cost object.

11. The three manufacturing costs for a manufacturing company are direct materials, direct labor, and manufacturing overhead. Direct materials are materials that become a physical part of a finished product and whose costs are easily traceable to the finished product. Direct labor is the labor cost of the employees who convert materials into finished products. Manufacturing overhead includes all manufacturing costs except direct materials and direct labor, such as indirect materials, indirect labor, factory depreciation, factory rent, and factory property taxes.

12. Examples of manufacturing overhead include costs of indirect materials, indirect labor, repair and maintenance in factory, factory utilities, factory rent, factory insurance, factory property taxes, manufacturing plant managers' salaries, and depreciation on manufacturing buildings and equipment.

13. Prime costs are direct materials plus direct labor. Conversion costs are direct labor plus manufacturing overhead. Note that direct labor is classified as both a prime cost and a conversion cost.

14. Product costs are the cost of purchasing or making a product. These costs are recorded as an asset and not expensed until the product is sold. Product costs include direct materials, direct labor, and manufacturing overhead.

15. Period costs are non-manufacturing costs that are expensed in the same accounting period in which they are incurred, whereas product costs are recorded as an asset and not expensed until the accounting period in which the product is sold.

16. Cost of Goods Manufactured is calculated as Beginning Work-in-Process Inventory + Total Manufacturing Costs Incurred during the Year – Ending Work-in-Process Inventory. Total Manufacturing Costs Incurred during the Year = Direct Materials Used + Direct Labor + Manufacturing Overhead.

17. For a manufacturing company, the activity in the Finished Goods Inventory account provides the information for determining Cost of Goods Sold. A manufacturing company calculates Cost of Goods Sold as Beginning Finished Goods Inventory + Cost of Goods Manufactured – Ending Finished Good Inventory. In addition, a manufacturing company must track costs from Raw Materials Inventory and Work-in-Process Inventory in order to compute Cost of Goods Manufactured used in the previous equation.

For a merchandising company, the activity in the Merchandise Inventory account provides the information for determining Cost of Goods Sold. A merchandising company calculates Cost of Goods Sold as Beginning Merchandise Inventory + Purchases and Freight In – Ending Merchandise Inventory.

18. A manufacturing company calculates unit product cost as Cost of Goods Manufactured / Total number of units produced.

19. A service company calculates unit cost per service as Total Costs / Total number of services provided.

20. A merchandising company calculates unit cost per item as Total Cost of Goods Sold / Total number of items sold.

Short Exercises

S16-1

a. FA
b. MA
c. MA
d. FA
e. FA

S16-2

a. Confidentiality
b. Integrity
c. Competence (skipping the session); Integrity (company-paid conference)
d. Competence
e. Credibility; Integrity

S16-3

a. 2
b. 4
c. 1
d. 5
e. 4
f. 5
g. 3

S16-4

Glue for frames	$ 250
Plant depreciation	7,500
Plant foreman's salary	3,500
Plant janitor's wages	1,300
Oil for manufacturing equipment	150
Total manufacturing overhead	$ 12,700

S16-5

a. Period cost
b. Product cost
c. Product cost
d. Period cost
e. Product cost
f. Period cost
g. Product cost
h. Product cost
i. Period cost

S16-6

Beginning merchandise inventory		$ 8,600
Purchases	$ 47,000	
Freight in	2,400	49,400
Cost of goods available for sale		58,000
Ending merchandise inventory		(5,500)
Cost of goods sold		$ 52,500

S16-7

	Solutions:	Calculations:
(a)	$13,200	$63,200 [b, below] – $50,000
(b)	$63,200	$61,000 + $2,200
(c)	$28,000	$40,000 – $12,000
(d)	$200,800	$86,800 + 114,000
(e)	$60,000	$89,000 – $29,000
(f)	$86,800	$89,000 – $2,200
(g)	$30,000	$114,000 – $84,000

Order of calculations:
Smith, Inc.: (b), (a), (c)
Allen, Inc.: (e), (f), (d), and (g)

S16-8

Beginning Direct Materials		$ 4,100
Purchases of Direct Materials	$ 6,300	
Freight In	400	6,700
Direct Materials Available for Use		10,800
Ending Direct Materials		(1,300)
Direct Materials Used		$ 9,500

S16-9

Beginning Work-in-Process Inventory		$ 1,000
Direct Materials Used	$ 12,000	
Direct Labor	9,000	
Manufacturing Overhead	21,000	
Total Manufacturing Costs Incurred during the Year		42,000
Total Manufacturing Costs to Account For		43,000
Ending Work-in-Process Inventory		(5,000)
Cost of Goods Manufactured		$ 38,000

S16-10

Beginning Finished Goods Inventory	$ 30,000
Cost of Goods Manufactured	165,000
Cost of Goods Available for Sale	195,000
Ending Finished Goods Inventory	(10,000)
Cost of Goods Sold	$ 185,000

S16-11

1. d.
2. c.
3. e.
4. a.
5. b.

S16-12

Cost of one haircut = Total operating costs / Total number of haircuts

= [$950 + $548 + $190 + $60] / 190 haircuts

= $1,748 / 190 haircuts

= $9.20 per haircut

Exercises

E16-13

a. Financial
b. Creditors and Stockholders
c. Controlling
d. Managers
e. Financial
f. Managerial
g. Planning

E16-14

Students' responses will vary. Illustrative answers follow.

Requirement 1
A new employee who has engaged in this behavior is unlikely to become a valued and trusted employee. This type of behavior is unethical, and Sue Peters should consider beginning the process to terminate the employee. Any company policies with respect to discipline and termination should be followed.

As controller, Sue Peters probably hired Dale, and she is also responsible for the lack of controls that permitted a new employee to commit this theft. She will need to supervise Dale and subsequent bookkeepers more carefully.

Requirement 2
Being a new employee, Sue Peters may want to discuss the situation with her immediate supervisor or the company's president if appropriate. Unless Sue can obtain additional information, she may want to indicate to Dale that this behavior will not be tolerated in the future. Sue should establish better controls and closer supervision.

E16-15

Cost	Product			Product		Period	
	DM	**DL**	**MOH**	**Prime**	**Conversion**	**Selling**	**Admin**
a. Metal used for rims	*X*			*X*			
b. Sales salaries						**X**	
c. Rent on factory			**X**		**X**		
d. Wages of assembly workers		**X**		**X**	**X**		
e. Salary of production supervisor			**X**		**X**		
f. Depreciation on office equipment							**X**
g. Salary of CEO							**X**
h. Delivery expense						**X**	

E16-16

Company A is a manufacturing company. Company B is a service company. Company C is a merchandising company.

E16-17

Company A (all amounts in millions):

Net Sales Revenue		$ 48
Cost of Goods Sold		23
Gross Profit		25
Selling and Administrative Expenses:		
Selling Expenses	$ 4	
Administrative Expenses	7	
Total Selling and Administrative Expenses		11
Operating Income		$ 14

Company B (all amounts in millions):

Service Revenue		$ 65
Expenses:		
Wages Expense	$ 12	
Rent Expense	12	
Total Expenses		24
Operating Income		$ 41

Company C (all amounts in millions):

Net Sales Revenue		$ 75
Cost of Goods Sold		25
Gross Profit		50
Selling and Administrative Expenses:		
Selling Expenses	$ 8	
Administrative Expenses	4	
Total Selling and Administrative Expenses		12
Operating Income		$ 38

E16-18

Company A (all amounts in millions):

Cash	$ 6
Accounts Receivable	14
Raw Materials Inventory	6
Work-in-Process Inventory	9
Finished Goods Inventory	10
Total current assets	$ 45

Company B (all amounts in millions):

Cash	$ 34
Accounts Receivable	8
Total current assets	$ 42

Company C (all amounts in millions):

Cash	$ 25
Accounts Receivable	19
Merchandise Inventory	12
Total current assets	$ 56

E16-19

(a)

Total Manufacturing Costs to Account For	$ 55,400
Total Manufacturing Costs Incurred during the Year	(45,200)
Beginning Work-in-Process Inventory	$ 10,200

(b)

Total Manufacturing Costs Incurred during the Year	$ 45,200
Direct Materials Used	(14,400)
Direct Labor	(10,300)
Manufacturing Overhead	$ 20,500

(c)

Total Manufacturing Costs to Account For	$ 55,400
Cost of Goods Manufactured	(50,500)
Ending Work-in-Process Inventory	$ 4,900

(d)

Direct Materials Used	$ 35,900
Direct Labor	20,100
Manufacturing Overhead	10,000
Total Manufacturing Costs Incurred during the Year	$ 66,000

(e)

Beginning Work-in-Process Inventory	$ 40,800
Total Manufacturing Costs Incurred during the Year [d, above]	66,000
Total Manufacturing Costs to Account For	$ 106,800

(f)

Total Manufacturing Costs to Account For [e, above]	$ 106,800
Ending Work-in-Process Inventory	(25,500)
Cost of Goods Manufactured	$ 81,300

E16-19, cont.

(g)

Total Manufacturing Costs Incurred during the Year [h, below]	$ 6,100
Direct Labor	(1,900)
Manufacturing Overhead	(900)
Direct Materials Used	$ 3,300

(h)

Total Manufacturing Costs to Account For	$ 8,300
Beginning Work-in-Process Inventory	(2,200)
Total Manufacturing Costs Incurred During the Year	$ 6,100

(i)

Total Manufacturing Costs to Account For	$ 8,300
Ending Work-in-Process Inventory	(2,600)
Cost of Goods Manufactured	$ 5,700

E16-20
Requirement 1

WILSON CORP.			
Schedule of Cost of Goods Manufactured			
Year Ended December 31, 2018			
Beginning Work-in-Process Inventory			$ 109,000
Direct Materials Used:			
Beginning Direct Materials	$ 59,000		
Purchases of Direct Materials	151,000		
Direct Materials Available for Use	210,000		
Ending Direct Materials	(23,000)		
Direct Materials Used		$ 187,000	
Direct Labor		121,000	
Manufacturing Overhead:			
Depreciation, plant building and equipment	16,000		
Insurance on plant	24,000		
Repairs and maintenance—plant	10,000		
Indirect labor	39,000		
Total Manufacturing Overhead		89,000	
Total Manufacturing Costs Incurred During the Year			397,000
Total Manufacturing Costs to Account For			506,000
Ending Work-in-Process Inventory			(62,000)
Cost of Goods Manufactured			$ 444,000

Requirement 2

Unit product cost = Cost of goods manufactured / Total units produced

= $444,000 / 3,700 lamps

= $120 per lamp

E16-21

Beginning Work-in-Process Inventory			$ 40,000
Direct Materials Used:			
Beginning Direct Materials	$ 27,000		
Purchases of Direct Materials	73,000		
Direct Materials Available for Use	100,000		
Ending Direct Materials	(28,000)		
Direct Materials Used		$ 72,000	
Direct Labor		88,000	
Manufacturing Overhead		43,000	
Total Manufacturing Costs Incurred During the Year			203,000
Total Manufacturing Costs to Account For			243,000
Ending Work-in-Process Inventory			(32,000)
Cost of Goods Manufactured			$ 211,000

Beginning Finished Goods Inventory	$ 18,000	
Cost of Goods Manufactured	211,000	[above]
Cost of Goods Available for Sale	229,000	
Ending Finished Goods Inventory	(25,000)	
Cost of Goods Sold	$ 204,000	

E16-22

a. JIT

b. TQM

c. ERP

d. E-Commerce

E16-23
Requirement 1

Grooming Revenue		$ 16,300
Expenses:		
Wages Expense	$ 4,061	
Grooming Supplies Expense	1,675	
Building Rent Expense	900	
Utilities Expense	305	
Depreciation Expense—Equipment	55	
Total Expenses		6,996
Operating Income		$ 9,304

Requirement 2

Cost of Service to Groom One Dog = Total expenses / Total number of dogs groomed

= $6,996 / 660 dogs

= $10.60 per dog

E16-24
Requirement 1

Net Sales Revenue		$ 151,800
Cost of Goods Sold:		
Beginning Merchandise Inventory	$ 7,920	
Purchases	85,800	
Cost of Goods Available for Sale	93,720	
Ending Merchandise Inventory	(11,748)	
Cost of Goods Sold		81,972
Gross Profit		69,828
Selling and Administrative Expenses		47,058
Operating Income		$ 22,770

Requirement 2

Unit cost for one brush = Cost of goods sold / Total units sold

= $81,972 / 6,600 brushes

= $12.42 per brush

Problems (Group A)

P16-25A

Students' responses will vary. Illustrative answers follow.

Requirement 1

a. If the goods have been received, postponing recording of the purchases understates liabilities. This is unethical and inconsistent with the IMA standards even if the suppliers agree to delay billing.

b. The software has not been sold. Therefore, it would be inconsistent with the IMA standards to record it as sales.

c. Delaying year-end closing incorrectly records next year's sales in this year's sales. This is unethical and inconsistent with the IMA standards.

d. The appropriate allowance for bad debts is a difficult judgment. The decision should not be driven by the desire to meet a profit goal. It should be based on the likelihood that the company will not collect the debts. We cannot determine this without more information. However, since the company emphasizes earnings growth, which can lead to sales to customers with weaker credit records, reducing the allowance seems questionable. It is not clear whether this strategy is inconsistent with the IMA standards.

e. If the maintenance is postponed, there is no transaction to record. This strategy is beyond the responsibility of the controller, so it does not violate IMA standards.

Requirement 2

The inconsistencies noted for Smart Software, Inc. particularly impact the financial statement information provided by financial accounting to external users, such as creditors and stockholders. They will be led to believe the operating performance (profitability) of the company is better than it really is. This misrepresentation may result in the investors holding the stock when they may have sold it with the correct information. Similarly, creditors may grant credit to the company with the false income information when they may not grant credit with the correct income information.

Requirement 3

The controller should resist attempts to implement a, b, and c and should gather more information about d. If the President ignores Wallace, then Wallace needs to consider if she wants to work for a company that engages in unethical behavior. Accountants should not be associated with any unethical behavior, and Wallace should resign.

P16-26A
Requirement 1

Period costs are non-manufacturing costs that are expensed in the accounting period in which they are incurred.

Product costs are all costs of purchasing or making a product. These costs are recorded as an asset (inventory) on the balance sheet until the asset is sold. The cost is then transferred to an expense account (Cost of Goods Sold) on the income statement. Product costs include direct materials, direct labor, and manufacturing overhead.

On the income statement, Cost of Goods Sold (product cost) is subtracted from Sales Revenue to determine gross profit. The period costs are then subtracted to determine operating income.

Requirement 2

	Period Cost	Product Cost		
Cost:		**Direct Materials**	**Direct Labor**	**Manufacturing Overhead**
Shaft and handle of weed trimmer		X		
Motor of weed trimmer		X		
Factory labor for workers assembling weed trimmers			X	
Nylon thread used by the weed trimmer (not traced to the product)				X
Glue to hold housing together				X
Plant janitorial wages				X
Depreciation on factory equipment				X
Rent on plant				X
Sales commissions	X			
Administrative salaries	X			
Plant utilities				X
Shipping costs to deliver finished weed trimmers to customers	X			

P16-27A
Requirement 1

Service companies sell services rather than products. They sell time, skills, and knowledge. Merchandising companies resell products previously bought from suppliers. Manufacturing companies use labor, equipment, supplies, and facilities to convert raw materials into new finished products.

Requirement 2

Company A is a merchandising company. Company B is a manufacturing company. The company types can be determined by the account names in the ledger.

Requirement 3

Company A:

Beginning Merchandise Inventory	$ 10,600
Purchases (net)	154,500
Cost of Goods Available for Sale	165,100
Ending Merchandise Inventory	(13,100)
Cost of Goods Sold	$ 152,000

Company B:

Beginning Finished Goods Inventory	$ 15,000
Cost of Goods Manufactured	214,500
Cost of Goods Available for Sale	229,500
Ending Finished Goods Inventory	(11,700)
Cost of Goods Sold	$ 217,800

P16-28A
Requirement 1

GOURMET BONES Schedule of Cost of Goods Manufactured Year Ended December 31, 2018			
Beginning Work-in-Process Inventory			$ 0
Direct Materials Used:			
Beginning Direct Materials	$ 13,500		
Purchases of Direct Materials	36,000		
Direct Materials Available for Use	49,500		
Ending Direct Materials	(7,500)		
Direct Materials Used		$ 42,000	
Direct Labor		23,000	
Manufacturing Overhead:			
Plant janitorial services	700		
Utilities for plant	1,300		
Rent on plant	17,000		
Total Manufacturing Overhead		19,000	
Total Manufacturing Costs Incurred during the Year			84,000
Total Manufacturing Costs to Account For			84,000
Ending Work-in-Process Inventory			(3,500)
Cost of Goods Manufactured			$ 80,500

P16-28A, cont.
Requirement 2

GOURMET BONES Income Statement Year Ended December 31, 2018		
Revenues:		
Net Sales Revenue		$ 107,000
Cost of Goods Sold:		
Beginning Finished Goods Inventory	$ 0	
Cost of Goods Manufactured*	80,500	
Cost of Goods Available for Sale	80,500	
Ending Finished Goods Inventory	(5,200)	
Cost of Goods Sold		75,300
Gross Profit		31,700
Selling and Administrative Expenses:		
Sales Salaries Expense	6,000	
Delivery Expense	1,300	
Customer Service Hotline Expense	1,200	
Total Selling and Administrative Expenses		8,500
Operating Income (Loss)		$ 23,200

* From the Schedule of Cost of Goods Manufactured in Requirement 1.

Requirement 3

For a manufacturing company, cost of goods sold on the income statement is based on cost of goods manufactured and the change in Finished Goods Inventory. For a merchandising company, cost of goods sold on the income statement is based on cost of merchandise purchased (including freight in) and the change in Merchandise Inventory.

Requirement 4

Unit product cost = Cost of goods manufactured / Total units produced

= $80,500 / 17,900 units

= $4.50 per unit (rounded to nearest cent)

P16-29A

ELLY MANUFACTURING COMPANY
Schedule of Cost of Goods Manufactured
Month Ended June 30, 2018

Beginning Work-in-Process Inventory			$ 27,000
Direct Materials Used:			
Beginning Direct Materials	$ **28,000**		
Purchases of Direct Materials	56,000		
Direct Materials Available for Use	84,000		
Ending Direct Materials	(20,000)		
Direct Materials Used		**64,000**	
Direct Labor		**72,000**	
Manufacturing Overhead		44,000	
Total Manufacturing Costs Incurred During the Month			180,000
Total Manufacturing Costs to Account For			**207,000**
Ending Work-in-Process Inventory			(25,000)
Cost of Goods Manufactured			$ **182,000**

Missing Amounts:

Beginning Direct Materials

Direct Materials Available for Use	$ 84,000
Purchases of Direct Materials	(56,000)
Beginning Direct Materials	$ 28,000

Direct Materials Used:

Direct Materials Available for Use	$ 84,000
Ending Direct Materials	(20,000)
Direct Materials Used	$ 64,000

Direct Labor:

Total Manufacturing Costs Incurred During the Month	$ 180,000
Manufacturing Overhead	(44,000)
Direct Materials Used [calculated above]	(64,000)
Direct Labor	$ 72,000

P16-29A, cont.

Total Manufacturing Costs to Account For:

Beginning Work-in-Process Inventory	$ 27,000
Total Manufacturing Costs Incurred During the Month	180,000
Total Manufacturing Costs to Account For	$ 207,000

Cost of Goods Manufactured:

Total Manufacturing Costs to Account For [calculated above]	$ 207,000
Ending Work-in-Process Inventory	(25,000)
Cost of Goods Manufactured	$ 182,000

ELLY MANUFACTURING COMPANY
Income Statement
Month Ended June 30, 2018

Net Sales Revenue		$ **490,000**
Cost of Goods Sold:		
Beginning Finished Goods Inventory	$ 110,000	
Cost of Goods Manufactured	**182,000**	
Cost of Goods Available for Sale	**292,000**	
Ending Finished Goods Inventory	**(60,000)**	
Cost of Goods Sold		232,000
Gross Profit		258,000
Selling and Administrative Expenses:		
Selling Expenses	98,000	
Administrative Expenses	**62,000**	
Total Selling and Administrative Expenses		160,000
Operating Income		$ **98,000**

Missing Amounts:

Net Sales Revenue:

Cost of Goods Sold	$ 232,000
Gross Profit	258,000
Net Sales Revenue	$ 490,000

P16-29A, cont.

Cost of Goods Manufactured:
[From the Schedule of Cost of Goods Manufactured]

Cost of Goods Available for Sale:

Beginning Finished Goods Inventory	$ 110,000
Cost of Goods Manufactured	182,000
Cost of Goods Available for Sale	$ 292,000

Ending Finished Goods Inventory:

Cost of Goods Available for Sale [calculated above]	$ 292,000
Cost of Goods Sold	(232,000)
Ending Finished Goods Inventory	$ 60,000

Administrative Expenses:

Total Selling and Administrative Expenses	$ 160,000
Selling Expenses	(98,000)
Administrative Expenses	$ 62,000

Operating Income:

Gross Profit	$ 258,000
Total Selling and Administrative Expenses	(160,000)
Operating Income	$ 98,000

P16-30A
Requirement 1

Cost of direct materials purchased:

Direct Materials Used	=	Beginning Direct Materials	+	Purchases of Direct Materials	–	Ending Direct Materials

Solving for cost of direct materials purchased:

Purchases of Direct Materials	=	Direct Materials Used	+	Ending Direct Materials	–	Beginning Direct Materials
	=	$2,000,000	+	$800,000	–	$700,000
	=	$2,100,000				

Requirement 2

Cost of goods manufactured for the year:

Cost of Goods Manufactured	=	Beginning Work-in-Process Inventory	+	Total Manufacturing Costs Incurred	–	Ending Work-in-Process Inventory
	=	$1,500,000	+	$26,300,000	–	$1,200,000
	=	$26,600,000				

Requirement 3

Cost of goods sold for the year:

Cost of Goods Sold	=	Beginning Finished Goods Inventory	+	Cost of Goods Manufactured	–	Ending Finished Goods Inventory
	=	$400,000	+	$26,600,000 [calculated in 2]	–	$600,000
	=	$26,400,000				

P16-31A
Requirement 1

THE WINDSHIELD DOCTORS Income Statement Month Ended March 31, 2018		
Revenues:		
Net Service Revenue		$ 23,000
Expenses:		
Salaries and Wages Expense	$ 12,000	
Materials Expense	4,600	
Depreciation Expense—Truck	300	
Depreciation Expense—Building and Equipment	1,200	
Supplies Expense	300	
Utilities Expense	460	
Total Expenses		18,860
Operating Income		$ 4,140

Requirement 2

Unit cost = Total expenses / Total windshields repaired

= $18,860 / 500 windshields

= $37.72 per windshield

Requirement 3

Yes. The actual unit cost per windshield of $37.72 is less than $50.

P16-32A
Requirement 1

CLYDE'S PETS
Income Statement
Year Ended December 31, 2018

Revenues:		
Net Sales Revenue		$ 56,000
Cost of Goods Sold:		
Beginning Merchandise Inventory	$ 15,900	
Purchases of Merchandise	25,000	
Cost of Goods Available for Sale	40,900	
Ending Merchandise Inventory	(10,100)	
Cost of Goods Sold		30,800
Gross Profit		25,200
Selling and Administrative Expenses:		
Utilities Expense	3,300	
Rent Expense	4,100	
Sales Commission Expense	2,650	
Total Selling and Administrative Expenses		10,050
Operating Income		$ 15,150

Requirement 2

Unit cost = Cost of goods sold / Total units sold

= $30,800 / 3,850 units

= $8.00 per unit

Problems (Group B)

P16-33B

Students' responses will vary. Illustrative answers follow.

Requirement 1

a. If the goods have been received, postponing recording of the purchases understates liabilities. This is unethical and inconsistent with the IMA standards even if the suppliers agree to delay billing.

b. The software has not been sold. Therefore, it would be inconsistent with the IMA standards to record it as sales.

c. Delaying year-end closing incorrectly records next year's sales in this year's sales. This is unethical and inconsistent with the IMA standards.

d. The appropriate allowance for bad debts is a difficult judgment. The decision should not be driven by the desire to meet a profit goal. It should be based on the likelihood that the company will not collect the debts. We cannot determine this without more information. However, since the company emphasizes earnings growth, which can lead to sales to customers with weaker credit records, reducing the allowance seems questionable. It is not clear whether this strategy is inconsistent with the IMA standards.

e. If the maintenance is postponed, there is no transaction to record. This strategy is beyond the responsibility of the controller, so it does not violate IMA standards.

Requirement 2

The inconsistencies noted for Halo Software, Inc. particularly impact the financial statement information provided by financial accounting to external users, such as creditors and stockholders. They will be led to believe the operating performance (profitability) of the company is better than it really is. This misrepresentation may result in the investors holding the stock when they may have sold it with the correct information. Similarly, creditors may grant credit to the company with the false income information when they may not grant credit with the correct income information.

Requirement 3

The controller should resist attempts to implement a, b, and c and should gather more information about d. If the President ignores Borzi, then Borzi needs to consider if she wants to work for a company that engages in unethical behavior. Borzi should not be associated with unethical behavior and should resign.

P16-34B
Requirement 1

Period costs are non-manufacturing costs that are expensed in the accounting period in which they are incurred.

Product costs are the costs of purchasing or making a product. These costs are recorded as an asset (inventory) on the balance sheet until the asset is sold. The cost is then transferred to an expense account (Cost of Goods Sold) on the income statement. Product costs include direct materials, direct labor, and manufacturing overhead.

On the income statement, Cost of Goods Sold (product cost) is subtracted from Sales Revenue to determine gross profit. The period costs are then subtracted from gross profit to determine operating income.

Requirement 2

		Product Cost		
Cost:	**Period Cost**	**Direct Materials**	**Direct Labor**	**Manufacturing Overhead**
Handle and shaft of edger		**X**		
Motor of edger		**X**		
Factory labor for workers assembling edgers			**X**	
Lubricant used on bearings in the edger (not traced to the product)				**X**
Glue to hold housing together				**X**
Plant janitorial wages				**X**
Depreciation on factory equipment				**X**
Rent on plant				**X**
Sales commissions	**X**			
Administrative salaries	**X**			
Plant utilities				**X**
Shipping costs to deliver finished edgers to customers	**X**			

P16-35B
Requirement 1

Service companies sell services rather than products. They sell time, skills, and knowledge. Merchandising companies resell products previously bought from suppliers. Manufacturing companies use labor, equipment, supplies, and facilities to convert raw materials into new finished products.

Requirement 2

Company 1 is a merchandising company. Company 2 is a manufacturing company. The company type can be determined by the account names in the ledger.

Requirement 3

Company 1:

Beginning Merchandise Inventory	$ 11,600
Purchases (net)	152,500
Cost of Goods Available for Sale	164,100
Ending Merchandise Inventory	(12,400)
Cost of Goods Sold	$ 151,700

Company 2:

Beginning Finished Goods Inventory	$ 15,400
Cost of Goods Manufactured	214,500
Cost of Goods Available for Sale	229,900
Ending Finished Goods Inventory	(11,300)
Cost of Goods Sold	$ 218,600

P16-36B
Requirement 1

CHEWY BONES Schedule of Cost of Goods Manufactured Year Ended December 31, 2018			
Beginning Work-in-Process Inventory			$ 0
Direct Materials Used:			
Beginning Direct Materials	$ 13,400		
Purchases of Direct Materials	39,000		
Direct Materials Available for Use	52,400		
Ending Direct Materials	(10,500)		
Direct Materials Used		$ 41,900	
Direct Labor		16,000	
Manufacturing Overhead:			
Plant janitorial services	900		
Utilities for plant	1,200		
Rent on plant	9,000		
Total Manufacturing Overhead		11,100	
Total Manufacturing Costs Incurred during the Year			69,000
Total Manufacturing Costs to Account For			69,000
Ending Work-in-Process Inventory			(1,500)
Cost of Goods Manufactured			$ 67,500

P16-36B, cont.
Requirement 2

CHEWY BONES		
Income Statement		
Year Ended December 31, 2018		
Revenues:		
Net Sales Revenue		$ 115,000
Cost of Goods Sold:		
Beginning Finished Goods Inventory	$ 0	
Cost of Goods Manufactured*	67,500	
Cost of Goods Available for Sale	67,500	
Ending Finished Goods Inventory	(5,400)	
Cost of Goods Sold		62,100
Gross Profit		52,900
Selling and Administrative Expenses:		
Sales Salaries Expense	5,100	
Delivery Expense	1,700	
Customer Service Hotline Expense	1,600	
Total Selling and Administrative Expenses		8,400
Operating Income (Loss)		$ 44,500

* From the Schedule of Cost of Goods Manufactured in Requirement 1.

Requirement 3

For a manufacturing company, cost of goods sold on the income statement is based on cost of goods manufactured and the change in Finished Goods Inventory. For a merchandising company, cost of goods sold on the income statement is based on cost of merchandise purchased (including freight in) and the change in Merchandise Inventory.

Requirement 4

Unit cost	=	Cost of goods manufactured / Total units produced
	=	$67,500 / 17,500 units
	=	$3.86 per unit (rounded to the nearest cent)

P16-37B

CHARLIE MANUFACTURING COMPANY
Schedule of Cost of Goods Manufactured
Month Ended June 30, 2018

Beginning Work-in-Process Inventory			$ 26,000
Direct Materials Used:			
Beginning Direct Materials	$ **30,000**		
Purchases of Direct Materials	51,000		
Direct Materials Available for Use	81,000		
Ending Direct Materials	(26,000)		
Direct Materials Used		$ **55,000**	
Direct Labor		**72,000**	
Manufacturing Overhead		50,000	
Total Manufacturing Costs Incurred During the Month			177,000
Total Manufacturing Costs to Account For			**203,000**
Ending Work-in-Process Inventory			(29,000)
Cost of Goods Manufactured			$ **174,000**

Missing Amounts:

Beginning Direct Materials:

Direct Materials Available for Use	$ 81,000
Purchases of Direct Materials	(51,000)
Beginning Direct Materials	$ 30,000

Direct Materials Used:

Direct Materials Available for Use	$ 81,000
Ending Direct Materials	(26,000)
Direct Materials Used	$ 55,000

Direct Labor:

Total Manufacturing Costs Incurred During the Month	$ 177,000
Manufacturing Overhead	(50,000)
Direct Materials Used [calculated above]	(55,000)
Direct Labor	$ 72,000

P16-37B, cont.

Total Manufacturing Costs to Account For:

Beginning Work-in-Process Inventory	$ 26,000
Total Manufacturing Costs Incurred During the Month	177,000
Total Manufacturing Costs to Account For	$ 203,000

Cost of Goods Manufactured:

Total Manufacturing Costs to Account For [calculated above]	$ 203,000
Ending Work-in-Process Inventory	(29,000)
Cost of Goods Manufactured	$ 174,000

CHARLIE MANUFACTURING COMPANY
Income Statement
Month Ended June 30, 2018

Net Sales Revenue		$ **500,000**
Cost of Goods Sold:		
Beginning Finished Goods Inventory	$ 118,000	
Cost of Goods Manufactured	**174,000**	
Cost of Goods Available for Sale	**292,000**	
Ending Finished Goods Inventory	**(60,000)**	
Cost of Goods Sold		232,000
Gross Profit		268,000
Selling and Administrative Expenses:		
Selling Expenses	90,000	
Administrative Expenses	**60,000**	
Total Selling and Administrative Expenses		150,000
Operating Income		$ **118,000**

Missing Amounts:

Net Sales Revenue:

Cost of Goods Sold	$ 232,000
Gross Profit	268,000
Net Sales Revenue	$ 500,000

P16-37B, cont.

Cost of Goods Manufactured:
[From the Schedule of Cost of Goods Manufactured]

Cost of Goods Available for Sale:

Beginning Finished Goods Inventory	$ 118,000
Cost of Goods Manufactured	174,000
Cost of Goods Available for Sale	$ 292,000

Ending Finished Goods Inventory:

Cost of Goods Available for Sale [calculated above]	$ 292,000
Cost of Goods Sold	(232,000)
Ending Finished Goods Inventory	$ 60,000

Administrative Expenses:

Total Selling and Administrative Expenses	$ 150,000
Selling Expenses	(90,000)
Administrative Expenses	$ 60,000

Operating Income:

Gross Profit	$ 268,000
Total Selling and Administrative Expenses	(150,000)
Operating Income	$ 118,000

P16-38B
Requirement 1

Cost of direct materials purchased during the year:

Direct Materials Used	=	Beginning Direct Materials	+	Purchases of Direct Materials	−	Ending Direct Materials

Solving for cost of direct materials purchased:

Purchases of Direct Materials	=	Direct Materials Used	+	Ending Direct Materials	−	Beginning Direct Materials
	=	$2,600,000	+	$800,000	−	$700,000
	=	$2,700,000				

Requirement 2

Cost of goods manufactured for the year:

Cost of Goods Manufactured	=	Beginning Work-in-Process Inventory	+	Total Manufacturing Costs Incurred	−	Ending Work-in-Process Inventory
	=	$1,500,000	+	$21,900,000	−	$2,000,000
	=	$21,400,000				

Requirement 3

Cost of goods sold for the year:

Cost of Goods Sold	=	Beginning Finished Goods Inventory	+	Cost of Goods Manufactured	−	Ending Finished Goods Inventory
	=	$1,100,000	+	$21,400,000 [calculated in 2]	−	$1,080,000
	=	$21,420,000				

P16-39B
Requirement 1

THE GLASS DOCTORS Income Statement Month Ended July 31, 2018		
Revenues:		
Net Service Revenue		$ 25,000
Expenses:		
Salaries and Wages Expense	$ 10,000	
Materials Expense	4,100	
Depreciation Expense—Truck	500	
Depreciation Expense—Building and Equipment	900	
Supplies Expense	450	
Utilities Expense	4,550	
Total Expenses		20,500
Operating Income		$ 4,500

Requirement 2

Unit cost = Total expenses / Total windshields repaired

= $20,500 / 250 windshields

= $82.00 per windshield

Requirement 3

No. The actual unit cost per windshield of $82.00 is greater than $80.

P16-40B
Requirement 1

DILLON'S PETS		
Income Statement		
Year Ended December 31, 2018		
Revenues:		
Net Sales Revenue		$ 56,000
Cost of Goods Sold:		
Beginning Merchandise Inventory	$ 16,000	
Purchases of Merchandise	25,000	
Cost of Goods Available for Sale	41,000	
Ending Merchandise Inventory	(10,500)	
Cost of Goods Sold		30,500
Gross Profit		25,500
Selling and Administrative Expenses:		
Utilities Expense	3,200	
Rent Expense	4,100	
Sales Commission Expense	2,750	
Total Selling and Administrative Expenses		10,050
Operating Income		$ 15,450

Requirement 2

Unit cost = Cost of goods sold / Total units sold

= $30,500 / 5,550 units

= $5.50 per unit (rounded to the nearest cent)

Using Excel

P16-41

The student templates for *Using Excel* are available online in MyAccountingLab in the Multimedia Library or at http://www.pearsonhighered.com/Horngren. The solution to *Using Excel* is located in MyAccountingLab in the Instructor Resource Center or at http://www.pearsonhighered.com/Horngren.

Continuing Problem

P16-42

PIEDMONT COMPUTER COMPANY
Schedule of Cost of Goods Manufactured
Month Ended January 31, 2020

Beginning Work-in-Process Inventory			$ 0
Direct Materials Used:			
Beginning Direct Materials	$ 10,500		
Purchases of Direct Materials	16,000		
Direct Materials Available for Use	26,500		
Ending Direct Materials	(9,700)		
Direct Materials Used		$ 16,800	
Direct Labor		210,000	
Manufacturing Overhead:			
Plant janitorial services	500		
Utilities for plant	16,000		
Rent on plant	9,000		
Total Manufacturing Overhead		25,500	
Total Manufacturing Costs Incurred during the Month			252,300
Total Manufacturing Costs to Account For			252,300
Ending Work-in-Process Inventory			(17,000)
Cost of Goods Manufactured			$ 235,300

Tying It All Together Case 16–1

Requirement 1

Winnebago's finished goods inventory is such a relatively small portion of total inventory because Winnebago manufactures the RVs and then sells them to dealerships for resale to consumers. The company does not own or operate dealerships. Therefore, Winnebago has a relatively small portion of Finished Goods Inventory. As soon as RVs are complete, Winnebago will want to sell them to the dealerships. The majority of Winnebago's inventory is in Raw Materials Inventory that will be used in the manufacturing process and Work–in–Process Inventory of the RVs started but not yet completed.

Requirement 2

Average cost of goods sold = Average sales price × Cost of goods sold % = \$96,000 × 89% = \$85,440.
Average gross profit = Average sales price – Average cost of goods sold = \$96,000 – \$85,440 = \$10,560.

Requirement 3

Average cost of goods sold = Average sales price × Cost of goods sold % = \$96,000 × 86% = \$82,560.
Average gross profit = Average sales price – Average cost of goods sold = \$96,000 – \$82,560 = \$13,440. Profits would increase by \$2,880 (\$13,440 – \$10,560) per motor home sold.

Requirement 4

Total increase in operating income = Average increase in profits per motor home × Number of motor homes = \$2,880 per motor home × 9,097 motor homes = \$26,199,360.

Requirement 5

Managerial accounting provides detailed information on all costs incurred by the company. Managers can use the information provided to analyze different types of costs, such as product costs and period costs, to determine where actual costs exceeded expected costs and then consider options to reduce those costs.

Decision Case 16-1
Requirement 1

Shown in the schedule, below, the ending inventories are: Direct Materials, $143,000; Work-in-Process Inventory, $239,000; and Finished Goods Inventory, $150,000.

POWERSWITCH, INC. Flow of Costs Schedule For the 1st Quarter					
Raw Materials Inventory**		**Work-in-Process Inventory**		**Finished Goods Inventory**	
Beginning DM	$ 113,000 *	Beginning WIP Inventory	$ 229,000 *	Beginning FG Inventory	$ 154,000 *
+ Purchases of DM	476,000 *	+ Direct Materials Used	446,000 [e]	+ Cost of Goods Manufactured	1,186,000 [c]
		+ Direct Labor	505,000 *		
		+ Manufacturing Overhead	245,000 *		
= Direct Materials Available for Use	589,000	= Total Manufacturing Costs to Account For	1,425,000 *	= Cost of Goods Available for Sale	1,340,000 *
− Ending DM	143,000 [f]	− Ending WIP Inventory	239,000 [d]	− Ending FG Inventory	150,000 [b]
= Direct Materials Used	$ 446,000 [e]	= Cost of Goods Manufactured	$ 1,186,000 [c]	= Cost of Goods Sold	$ 1,190,000 [a]

* Denotes amounts given in the case.
**Direct materials portion only

Calculations for amounts denoted with a superscript letters are provided on the next two pages.

Decision Case 16-1, cont.

Calculations:

[a] Cost of Goods Sold:

Sales	×	(1 – Gross Profit %)	=	Cost of Goods Sold
$1,700,000	×	(1 – 30%)	=	$1,190,000
$1,700,000	×	70%	=	$1,190,000

[b] Ending Finished Goods Inventory:

Cost of Goods Available for Sale	–	Ending Finished Goods Inventory	=	Cost of Goods Sold
$1,340,000	–	Ending Finished Goods Inventory	=	$1,190,000
Therefore:		Ending Finished Goods Inventory	=	$150,000

[c] Cost of Goods Manufactured:

Beginning Finished Goods Inventory	+	Cost of Goods Manufactured	=	Cost of Goods Available for Sale
$154,000	+	Cost of Goods Manufactured	=	$1,340,000
Therefore:		Cost of Goods Manufactured	=	$1,186,000

[d] Ending Work-in-Process Inventory:

Total Manufacturing Costs to Account For	–	Ending Work-in-Process Inventory	=	Cost of Goods Manufactured
$1,425,000	–	Ending Work-in-Process Inventory	=	$1,186,000
Therefore:		Ending Work-in-Process Inventory	=	$ 239,000

Decision Case 16-1, cont.

[e] Direct Materials Used:

Beginning Work-in-Process Inventory	+	Direct Materials Used	+	Direct Labor	+	Manufacturing Overhead	=	Total Manufacturing Costs to Account For
$229,000	+	Direct Materials Used	+	$505,000	+	$245,000	=	$1,425,000
Therefore:		Direct Materials Used					=	$ 446,000

[f] Ending Direct Materials:

Direct Materials Available for Use	–	Ending Direct Materials	=	Direct Materials Used
$589,000	–	Ending Direct Materials	=	$446,000
Therefore:		Ending Direct Materials	=	$143,000

Requirement 2

Inventory lost in the flood:

Direct Materials	$143,000
Work-in-Process Inventory	239,000
Finished Goods Inventory	150,000
Total Inventory	$532,000

Ethical Issue 16-1

Students' responses will vary. Illustrative answers follow.

a. The ethical issue facing Becky is deciding what to do about the owner's gifts to the regional sales managers. Although small "courtesy" gifts are accepted practice in the world of sales, the regular basis and the high value of these items (especially jewelry) suggest that the owner is bribing the sales managers and other sales executives to receive a large allocation of cars.

b. The options include:
   (1) Do nothing,
   (2) Discuss the matter with the owner,
   (3) Resign if the owner will not stop the practice, or
   (4) Inform the manufacturer.

c. The possible consequences include:
   1. If Becky does nothing, her job and those of the other employees may remain secure for the time being. However, as controller she could be held accountable for laundering a bribe if the scheme became public. A lawsuit brought by other dealers who did not receive a fair share of available cars could name her as an involved party. If Becky is a CPA, she could also lose her CPA license.

      There are also potential tax consequences to consider. Since the jewelry expenditures are being recorded as selling expenses, it is likely that this amount is being deducted on the company's tax return. The IRS limits deductions of gifts to $25 per person per year. Since a Rolex watch far exceeds the cost of $25, Becky's failure to disclose the true nature of the expense may make her liable for underreporting the company's tax liability.

   2. If Becky discusses the matter with the owner, she might find out that there is another side to the story and in fact there is no wrongdoing or ethical dilemma. However, this seems unlikely given the facts. It also seems unlikely that the owner will end this practice since it enhances the dealership's profits. However, Becky may have some influence on Mueller if she explains the dangers of continuing the bribes. Mueller could be sued by other dealers, or the manufacturer could cancel his dealership. Such outcomes would affect all the dealership's employees, not just Mueller. If Mueller refuses to change his ways, then Becky is in an even more difficult position because she now has direct knowledge of the bribery.

Ethical Issue 16-1, cont.

3. By resigning, Becky loses her job but protects her integrity and avoids being involved in a subsequent action against the dealership if the bribery becomes known.

4. Perhaps an even more difficult question is whether Becky should inform the manufacturer about the bribery. If Becky has not already resigned, Mueller probably would fire her for taking this action.

d. Accountants should never become party to, or appear to be involved in, an unethical (and possibly illegal) situation such as this. This is especially true for persons with fiduciary responsibilities like a controller. Becky should discuss her concerns with the owner. If Mueller is indeed bribing the sales representatives and refuses to stop this practice, Becky should inform the manufacturer, or she should resign.

Communication Activity 16-1

Period costs are operating costs that are expensed in the same accounting period in which they are incurred, whereas product costs are recorded as an asset and not expensed until the accounting period in which the product is sold. Period costs are all costs not considered product costs.

Manufacturing companies track costs on three kinds of inventory. Raw Materials Inventory includes materials used to manufacture a product. Work-in-Process Inventory includes goods that have been started in the manufacturing process but are not yet complete. Finished Goods Inventory includes completed goods that have not yet been sold.

Chapter 16
Introduction to Managerial Accounting

Review Questions

1. What is the primary purpose of managerial accounting?

The primary purpose of managerial accounting is to provide information to help managers plan, direct, control, and make decisions.

2. List six differences between financial accounting and managerial accounting.

Financial accounting and managerial accounting differ on the following 6 dimensions: (1) primary users, (2) purpose of information, (3) focus and time dimension of the information, (4) rules and restrictions, (5) scope of information, and (6) behavioral.

3. Explain the difference between line positions and staff positions.

Line positions are directly involved in providing goods or services to customers. Staff positions support line positions.

4. Explain the differences between planning, directing, and controlling.

Planning means choosing goals and deciding how to achieve them. Directing involves running the day-to-day operations of a business. Controlling is the process of monitoring operations and keeping the company on track.

5. List the four IMA standards of ethical practice, and briefly describe each.

The four IMA standards of ethical practice and a description of each follow.

I. Competence.

- Maintain an appropriate level of professional expertise by continually developing knowledge and skills.
- Perform professional duties in accordance with relevant laws, regulations, and technical standards.
- Provide decision support information and recommendations that are accurate, clear, concise, and timely.
- Recognize and communicate professional limitations or other constraints that preclude responsible judgment or successful performance of an activity.

II. Confidentiality.

- Keep information confidential except when disclosure is authorized or legally required.
- Inform all relevant parties regarding appropriate use of confidential information. Monitor subordinates' activities to ensure compliance.
- Refrain from using confidential information for unethical or illegal advantage.

III. Integrity.

- Mitigate actual conflicts of interest, regularly communicate with business associates to avoid apparent conflicts of interest. Advise all parties of any potential conflicts.
- Refrain from engaging in any conduct that would prejudice carrying out duties ethically.
- Abstain from engaging in or supporting any activity that might discredit the profession.

IV. Credibility.

- Communicate information fairly and objectively.
- Disclose all relevant information that could reasonably be expected to influence an intended user's understanding of the reports, analyses, or recommendations.
- Disclose delays or deficiencies in information, timeliness, processing, or internal controls in conformance with organization policy and/or applicable law.

6. Describe a service company, and give an example.

Service companies sell time, skills, and knowledge. Examples of service companies include phone service companies, banks, cleaning service companies, accounting firms, law firms, medical physicians, and online auction services.

7. Describe a merchandising company, and give an example.

Merchandising companies resell products they buy from suppliers. Merchandisers keep an inventory of products, and managers are accountable for the purchasing, storage, and sale of the products. Examples of merchandising companies include toy stores, grocery stores, and clothing stores.

8. How do manufacturing companies differ from merchandising companies?

Merchandising companies resell products they previously bought from suppliers, whereas manufacturing companies use labor, equipment, supplies, and facilities to convert raw materials into new finished products. In contrast to merchandising companies, manufacturing companies have a broad range of production activities that require tracking costs on three kinds of inventory.

9. List the three inventory accounts used by manufacturing companies, and describe each.

The three inventory accounts used by manufacturing companies are Raw Materials Inventory, Work-in-Process Inventory, and Finished Goods Inventory.

Raw Materials Inventory includes materials used to manufacture a product. Work-in-Process Inventory includes goods that have been started in the manufacturing process but are not yet complete. Finished Goods Inventory includes completed goods that have not yet been sold.

10. Explain the difference between a direct cost and an indirect cost.

A direct cost is a cost that can be easily and cost-effectively traced to a cost object (which is anything for which managers want a separate measurement of cost). An indirect cost is a cost that cannot be easily or cost-effectively traced to a cost object.

11. What are the three manufacturing costs for a manufacturing company? Describe each.

The three manufacturing costs for a manufacturing company are direct materials, direct labor, and manufacturing overhead. Direct materials are materials that become a physical part of a finished product and whose costs are easily traceable to the finished product. Direct labor is the labor cost of the employees who convert materials into finished products. Manufacturing overhead includes all manufacturing costs except direct materials and direct labor, such as indirect materials, indirect labor, factory depreciation, factory rent, and factory property taxes.

12. Give five examples of manufacturing overhead.

Examples of manufacturing overhead include costs of indirect materials, indirect labor, repair and maintenance in factory, factory utilities, factory rent, factory insurance, factory property taxes, manufacturing plant managers' salaries, and depreciation on manufacturing buildings and equipment.

13. What are prime costs? Conversion costs?

Prime costs are direct materials plus direct labor. Conversion costs are direct labor plus manufacturing overhead. Note that direct labor is classified as both a prime cost and a conversion cost.

14. What are product costs?

Product costs are the cost of purchasing or making a product. These costs are recorded as an asset and not expensed until the product is sold. Product costs include direct materials, direct labor, and manufacturing overhead.

15. How do period costs differ from product costs?

Period costs are non-manufacturing costs that are expensed in the same accounting period in which they are incurred, whereas product costs are recorded as an asset and not expensed until the accounting period in which the product is sold.

16. How is cost of goods manufactured calculated?

Cost of Goods Manufactured is calculated as Beginning Work-in-Process Inventory + Total Manufacturing Costs Incurred during the Year – Ending Work-in-Process Inventory. Total Manufacturing Costs Incurred during the Year = Direct Materials Used + Direct Labor + Manufacturing Overhead.

17. How does a manufacturing company calculate cost of goods sold? How is this different from a merchandising company?

For a manufacturing company, the activity in the Finished Goods Inventory account provides the information for determining Cost of Goods Sold. A manufacturing company calculates Cost of Goods Sold as Beginning Finished Goods Inventory + Cost of Goods Manufactured – Ending Finished Good Inventory. In addition, a manufacturing company must track costs from Raw Materials Inventory and Work-in-Process Inventory in order to compute Cost of Goods Manufactured used in the previous equation.

For a merchandising company, the activity in the Merchandise Inventory account provides the information for determining Cost of Goods Sold. A merchandising company calculates Cost of Goods Sold as Beginning Merchandise Inventory + Purchases and Freight In – Ending Merchandise Inventory.

18. How does a manufacturing company calculate unit product cost?

A manufacturing company calculates unit product cost as Cost of Goods Manufactured / Total number of units produced.

19. How does a service company calculate unit cost per service?

A service company calculates unit cost per service as Total Costs / Total number of services provided.

20. How does a merchandising company calculate unit cost per item?

A merchandising company calculates unit cost per item as Total Cost of Goods Sold / Total number of items sold.

Short Exercises

S16-1 Comparing managerial accounting and financial accounting

Learning Objective 1

For each of the following, indicate whether the statement relates to managerial accounting (MA) or financial accounting (FA):

a. Helps investors make investment decisions.

b. Provides detailed reports on parts of the company.

c. Helps in planning and controlling operations.

d. Reports must follow Generally Accepted Accounting Principles (GAAP).

e. Reports audited annually by independent certified public accountants.

SOLUTION

a. FA
b. MA
c. MA
d. FA
e. FA

S16-2 Identifying ethical standards

Learning Objective 1

The Institute of Management Accountants' Statement of Ethical Professional Practice requires managerial accountants to meet standards regarding competence, confidentiality, integrity, and credibility. Consider the following situations. Which standard(s) is(are) violated in each situation?

a. You tell your brother that your company will report earnings significantly above financial analysts' estimates.

b. You see others take home office supplies for personal use. As an intern, you do the same thing, assuming that this is a "perk."

c. At a company-paid conference on e-commerce, you skip the afternoon session and go sightseeing.

d. You failed to read the detailed specifications of a new accounting software package that you asked your company to purchase. After it is installed, you are surprised that it is incompatible with some of your company's older accounting software.

e. You do not provide top management with the detailed job descriptions they requested because you fear they may use this information to cut a position in your department.

S16-2, cont.

SOLUTION

a. Confidentiality
b. Integrity
c. Competence (skipping the session); Integrity (company-paid conference)
d. Competence
e. Credibility; Integrity

S16-3 Distinguishing between direct and indirect costs

Learning Objective 2

Granger Cards is a manufacturer of greeting cards. Classify its costs by matching the costs to the terms.

1. Direct materials	**a.** Artists' wages
2. Direct labor	**b.** Wages of materials warehouse workers
3. Indirect materials	**c.** Paper
4. Indirect labor	**d.** Depreciation on manufacturing equipment
5. Other manufacturing overhead	**e.** Manufacturing plant manager's salary
	f. Property taxes on manufacturing plant
	g. Glue for envelopes

SOLUTION

a. 2
b. 4
c. 1
d. 5
e. 4
f. 5
g. 3

S16-4 Computing manufacturing overhead

Learning Objective 2

Sunglasses Unlimited Company manufactures sunglasses. Following is a list of costs the company incurred during May. Use the list to calculate the total manufacturing overhead costs for the month.

Glue for frames	$ 250
Depreciation on company cars used by sales force	4,000
Plant depreciation	7,500
Interest Expense	1,500
Lenses	52,000
Company president's salary	24,500
Plant foreman's salary	3,500
Plant janitor's wages	1,300
Oil for manufacturing equipment	150

SOLUTION

Glue for frames	$ 250
Plant depreciation	7,500
Plant foreman's salary	3,500
Plant janitor's wages	1,300
Oil for manufacturing equipment	150
Total manufacturing overhead	$ 12,700

S16-5 Identifying product costs and period costs

Learning Objective 2

Classify each cost of a paper manufacturer as either a product cost or a period cost:

a. Salaries of scientists studying ways to speed forest growth.

b. Cost of computer software to track WIP Inventory.

c. Cost of electricity at the paper mill.

d. Salaries of the company's top executives.

e. Cost of chemicals to treat the paper.

f. Cost of TV ads.

g. Depreciation on the manufacturing plant.

h. Cost to purchase wood pulp.

i. Life insurance on the CEO.

SOLUTION

a. Period cost

b. Product cost

c. Product cost

d. Period cost

e. Product cost

f. Period cost

g. Product cost

h. Product cost

i. Period cost

S16-6 Computing cost of goods sold, merchandising company

Learning Objective 3

Use the following information for The Windshield Helper, a retail merchandiser of auto windshields, to compute the cost of goods sold:

Web Site Maintenance	$ 7,900
Delivery Expense	400
Freight In	2,400
Purchases	47,000
Ending Merchandise Inventory	5,500
Revenues	63,000
Marketing Expenses	10,700
Beginning Merchandise Inventory	8,600

SOLUTION

Beginning merchandise inventory		$ 8,600
Purchases	$ 47,000	
Freight in	2,400	49,400
Cost of goods available for sale		58,000
Ending merchandise inventory		(5,500)
Cost of goods sold		$ 52,500

S16-7 Computing cost of goods sold and operating income, merchandising company

Learning Objective 3

Consider the following partially completed income statements for merchandising companies and compute the missing amounts:

	Smith, Inc.	Allen, Inc.
Net Sales Revenue	$ 101,000	$ *(d)*
Cost of Goods Sold:		
Beginning Merchandise Inventory	*(a)*	29,000
Purchases and Freight In	50,000	*(e)*
Cost of Goods Available for Sale	*(b)*	89,000
Ending Merchandise Inventory	(2,200)	(2,200)
Cost of Goods Sold	61,000	*(f)*
Gross Profit	40,000	114,000
Selling and Administrative Expenses	*(c)*	84,000
Operating Income	$ 12,000	$ *(g)*

SOLUTION

	Solutions:	Calculations:
(a)	$13,200	$63,200 [b, below] – $50,000
(b)	$63,200	$61,000 + $2,200
(c)	$28,000	$40,000 – $12,000
(d)	$200,800	$86,800 + 114,000
(e)	$60,000	$89,000 – $29,000
(f)	$86,800	$89,000 – $2,200
(g)	$30,000	$114,000 – $84,000

Order of calculations:
Smith, Inc.: (b), (a), (c)
Allen, Inc.: (e), (f), (d), and (g)

S16-8 Computing direct materials used

Learning Objective 3

Tuscany, Inc. has compiled the following data:

Purchases of Direct Materials	$ 6,300
Freight In	400
Property Taxes	800
Ending Direct Materials	1,300
Beginning Direct Materials	4,100

Compute the amount of direct materials used.

SOLUTION

Beginning Direct Materials		$ 4,100
Purchases of Direct Materials	$ 6,300	
Freight In	400	6,700
Direct Materials Available for Use		10,800
Ending Direct Materials		(1,300)
Direct Materials Used		$ 9,500

S16-9 Computing cost of goods manufactured

Learning Objective 3

Use the following inventory data for Caddy Golf Company to compute the cost of goods manufactured for the year:

Direct Materials Used	$ 12,000
Manufacturing Overhead	21,000
Work-in-Process Inventory:	
Beginning Balance	1,000
Ending Balance	5,000
Direct Labor	9,000
Finished Goods Inventory:	
Beginning Balance	18,000
Ending Balance	4,000

S16-9, cont.

SOLUTION

Beginning Work-in-Process Inventory		$ 1,000
Direct Materials Used	$ 12,000	
Direct Labor	9,000	
Manufacturing Overhead	21,000	
Total Manufacturing Costs Incurred during the Year		42,000
Total Manufacturing Costs to Account For		43,000
Ending Work-in-Process Inventory		(5,000)
Cost of Goods Manufactured		$ 38,000

S16-10 Computing cost of goods sold, manufacturing company

Learning Objective 3

Use the following information to calculate the cost of goods sold for The Ellis Company for the month of June:

Finished Goods Inventory:	
Beginning Balance	$ 30,000
Ending Balance	10,000
Cost of Goods Manufactured	165,000

SOLUTION

Beginning Finished Goods Inventory	$ 30,000
Cost of Goods Manufactured	165,000
Cost of Goods Available for Sale	195,000
Ending Finished Goods Inventory	(10,000)
Cost of Goods Sold	$ 185,000

S16-11 Matching business trends terminology

Learning Objective 4

Match the term with the correct definition.

1. A philosophy designed to integrate all organizational areas in order to provide customers with superior products and services while meeting organizational objectives. Requires improving quality and eliminating defects and waste.	**a.** ERP
2. Use of the Internet for business functions such as sales and customer service. Enables companies to reach customers around the world.	**b.** JIT
3. Evaluating a company's performance by its economic, social, and environmental impact.	**c.** E-commerce
4. Software system that integrates all of a company's functions, departments, and data into a single system.	**d.** TQM
5. A system in which a company produces products just when they are needed to satisfy needs. Suppliers deliver materials when they are needed to begin production, and finished units are completed at the right time for delivery to customers.	**e.** Triple bottom line

SOLUTION

1. d.
2. c.
3. e.
4. a.
5. b.

S16-12 Calculating unit cost per service

Learning Objective 5

Marx and Tyler provides hair-cutting services in the local community. In February, the business cut the hair of 190 clients, earned $4,800 in revenues, and incurred the following operating costs:

Hair Supplies Expense	$ 950
Wages Expense	548
Utilities Expense	190
Depreciation Expense—Equipment	60

What was the cost of service to provide one haircut?

SOLUTION

Cost of one haircut	=	Total operating costs / Total number of haircuts
	=	[$950 + $548 + $190 + $60] / 190 haircuts
	=	$1,748 / 190 haircuts
	=	$9.20 per haircut

Exercises

E16-13 Comparing managerial accounting and financial accounting

Learning Objective 1

Match the following terms to the appropriate statement. Some terms may be used more than once, and some terms may not be used at all.

Directing	Managerial
Creditors	Managers
Controlling	Planning
Financial	Stockholders

a. Accounting systems that must follow GAAP.

b. External parties for whom financial accounting reports are prepared.

c. The role managers play when they are monitoring day-to-day operations and keeping the company on track.

d. Internal decision makers.

e. Accounting system that provides information on a company's past performance.

f. Accounting system not restricted by GAAP.

g. The management function that involves choosing goals and deciding how to achieve them.

SOLUTION

a. Financial

b. Creditors and Stockholders

c. Controlling

d. Managers

e. Financial

f. Managerial

g. Planning

E16-14 Making ethical decisions

Learning Objective 1

Sue Peters is the controller at Vroom, a car dealership. Dale Miller recently has been hired as the bookkeeper. Dale wanted to attend a class in Excel spreadsheets, so Sue temporarily took over Dale's duties, including overseeing a fund used for gas purchases before test drives. Sue found a shortage in the fund and confronted Dale when he returned to work. Dale admitted that he occasionally uses the fund to pay for his own gas. Sue estimated the shortage at $450.

Requirements

1. What should Sue Peters do?
2. Would you change your answer if Sue Peters was the one recently hired as controller and Dale Miller was a well-liked, longtime employee who indicated he always eventually repaid the fund?

SOLUTION

Students' responses will vary. Illustrative answers follow.

Requirement 1

A new employee who has engaged in this behavior is unlikely to become a valued and trusted employee. This type of behavior is unethical, and Sue Peters should consider beginning the process to terminate the employee. Any company policies with respect to discipline and termination should be followed.

As controller, Sue Peters probably hired Dale, and she is also responsible for the lack of controls that permitted a new employee to commit this theft. She will need to supervise Dale and subsequent bookkeepers more carefully.

Requirement 2

Being a new employee, Sue Peters may want to discuss the situation with her immediate supervisor or the company's president if appropriate. Unless Sue can obtain additional information, she may want to indicate to Dale that this behavior will not be tolerated in the future. Sue should establish better controls and closer supervision.

E16-15 Classifying costs

Learning Objective 2

Wheels, Inc. manufactures wheels for bicycles, tricycles, and scooters. For each cost given below, determine if the cost is a product cost or a period cost. If the cost is a product cost, further determine if the cost is direct materials (DM), direct labor (DL), or manufacturing overhead (MOH) and then determine if the product cost is a prime cost, conversion cost, or both. If the cost is a period cost, further determine if the cost is a selling expense or administrative expense (Admin). *Cost (a) is answered as a guide.*

Cost	Product					Period	
	DM	DL	MOH	Prime	Conversion	Selling	Admin.
a. *Metal used for rims*	*X*			*X*			
b. Sales salaries							
c. Rent on factory							
d. Wages of assembly workers							
e. Salary of production supervisor							
f. Depreciation on office equipment							
g. Salary of CEO							
h. Delivery expense							

SOLUTION

Cost	Product			Product		Period	
	DM	DL	MOH	Prime	Conversion	Selling	Admin
a. Metal used for rims	*X*			*X*			
b. Sales salaries						X	
c. Rent on factory			X		X		
d. Wages of assembly workers		X		X	X		
e. Salary of production supervisor			X		X		
f. Depreciation on office equipment							X
g. Salary of CEO							X
h. Delivery expense						X	

Use the following data for Exercises E16-16, E16-17, and E16-18.

Selected data for three companies are given below. All inventory amounts are ending balances and all amounts are in millions.

Company A		**Company B**		**Company C**	
Cash	$ 6	Wages Expense	$ 12	Administrative Expenses	$ 4
Net Sales Revenue	48	Equipment	32	Cash	25
Finished Goods Inventory	10	Accounts Receivable	8	Net Sales Revenue	75
Cost of Goods Sold	23	Service Revenue	65	Selling Expenses	8
Selling Expenses	4	Cash	34	Merchandise Inventory	12
Equipment	67	Rent Expense	12	Equipment	55
Work-in-Process Inventory	9			Accounts Receivable	19
Accounts Receivable	14			Cost of Goods Sold	25
Cost of Goods Manufactured	23				
Administrative Expenses	7				
Raw Materials Inventory	6				

E16-16 Identifying differences between service, merchandising, and manufacturing companies

Learning Objective 3

Using the above data, determine the company type. Identify each company as a service company, merchandising company, or manufacturing company.

SOLUTION

Company A is a manufacturing company. Company B is a service company. Company C is a merchandising company.

E16-17 Identifying differences between service, merchandising, and manufacturing companies

Learning Objective 3

Company B: $41
Using the data on the previous page, calculate operating income for each company.

SOLUTION

Company A (all amounts in millions):

Net Sales Revenue		$ 48
Cost of Goods Sold		23
Gross Profit		25
Selling and Administrative Expenses:		
Selling Expenses	$ 4	
Administrative Expenses	7	
Total Selling and Administrative Expenses		11
Operating Income		$ 14

Company B (all amounts in millions):

Service Revenue		$ 65
Expenses:		
Wages Expense	$ 12	
Rent Expense	12	
Total Expenses		24
Operating Income		$ 41

Company C (all amounts in millions):

Net Sales Revenue		$ 75
Cost of Goods Sold		25
Gross Profit		50
Selling and Administrative Expenses:		
Selling Expenses	$ 8	
Administrative Expenses	4	
Total Selling and Administrative Expenses		12
Operating Income		$ 38

E16-18 Identifying differences between service, merchandising, and manufacturing companies

Learning Objective 3

Company C: $56
Using the data on the previous page, calculate total current assets for each company.

SOLUTION

Company A (all amounts in millions):

Cash	$ 6
Accounts Receivable	14
Raw Materials Inventory	6
Work-in-Process Inventory	9
Finished Goods Inventory	10
Total current assets	$ 45

Company B (all amounts in millions):

Cash	$ 34
Accounts Receivable	8
Total current assets	$ 42

Company C (all amounts in millions):

Cash	$ 25
Accounts Receivable	19
Merchandise Inventory	12
Total current assets	$ 56

E16-19 Computing cost of goods manufactured

Learning Objective 3

Consider the following partially completed schedules of cost of goods manufactured. Compute the missing amounts.

	Banner, Inc.	**Larry's Bakery**	**Sports Gear**
Beginning Work-in-Process Inventory	$ *(a)*	$ 40,800	$ 2,200
Direct Materials Used	14,400	35,900	*(g)*
Direct Labor	10,300	20,100	1,900
Manufacturing Overhead	*(b)*	10,000	900
Total Manufacturing Costs Incurred during the Year	45,200	*(d)*	*(h)*
Total Manufacturing Costs to Account for	55,400	*(e)*	8,300
Ending Work-in-Process Inventory	*(c)*	(25,500)	(2,600)
Cost of Goods Manufactured	$ 50,500	$ *(f)*	$ *(i)*

E16-19, cont.

SOLUTION

(a)

Total Manufacturing Costs to Account For	$ 55,400
Total Manufacturing Costs Incurred during the Year	(45,200)
Beginning Work-in-Process Inventory	$ 10,200

(b)

Total Manufacturing Costs Incurred during the Year	$ 45,200
Direct Materials Used	(14,400)
Direct Labor	(10,300)
Manufacturing Overhead	$ 20,500

(c)

Total Manufacturing Costs to Account For	$ 55,400
Cost of Goods Manufactured	(50,500)
Ending Work-in-Process Inventory	$ 4,900

(d)

Direct Materials Used	$ 35,900
Direct Labor	20,100
Manufacturing Overhead	10,000
Total Manufacturing Costs Incurred during the Year	$ 66,000

(e)

Beginning Work-in-Process Inventory	$ 40,800
Total Manufacturing Costs Incurred during the Year [d, above]	66,000
Total Manufacturing Costs to Account For	$ 106,800

(f)

Total Manufacturing Costs to Account For [e, above]	$ 106,800
Ending Work-in-Process Inventory	(25,500)
Cost of Goods Manufactured	$ 81,300

E16-19, cont.

(g)

Total Manufacturing Costs Incurred during the Year [h, below]	$ 6,100
Direct Labor	(1,900)
Manufacturing Overhead	(900)
Direct Materials Used	$ 3,300

(h)

Total Manufacturing Costs to Account For	$ 8,300
Beginning Work-in-Process Inventory	(2,200)
Total Manufacturing Costs Incurred During the Year	$ 6,100

(i)

Total Manufacturing Costs to Account For	$ 8,300
Ending Work-in-Process Inventory	(2,600)
Cost of Goods Manufactured	$ 5,700

E16-20 Preparing a schedule of cost of goods manufactured

Learning Objective 3
1. COGM: $444,000

Wilson Corp., a lamp manufacturer, provided the following information for the year ended December 31, 2018:

Balances:	**Beginning**	**Ending**
Direct Materials	$ 59,000	$ 23,000
Work-in-Process Inventory	109,000	62,000
Finished Goods Inventory	41,000	44,000
Other information:		
Depreciation, plant building and equipment		$ 16,000
Direct materials purchases		151,000
Insurance on plant		24,000
Sales salaries		47,000
Repairs and maintenance—plant		10,000
Indirect labor		39,000
Direct labor		121,000
Administrative expenses		60,000

Requirements

1. Use the information to prepare a schedule of cost of goods manufactured.
2. What is the unit product cost if Wilson manufactured 3,700 lamps for the year?

E16-20, cont.

SOLUTION

Requirement 1

WILSON CORP.			
Schedule of Cost of Goods Manufactured			
Year Ended December 31, 2018			
Beginning Work-in-Process Inventory			$ 109,000
Direct Materials Used:			
Beginning Direct Materials	$ 59,000		
Purchases of Direct Materials	151,000		
Direct Materials Available for Use	210,000		
Ending Direct Materials	(23,000)		
Direct Materials Used		$ 187,000	
Direct Labor		121,000	
Manufacturing Overhead:			
Depreciation, plant building and equipment	16,000		
Insurance on plant	24,000		
Repairs and maintenance—plant	10,000		
Indirect labor	39,000		
Total Manufacturing Overhead		89,000	
Total Manufacturing Costs Incurred During the Year			397,000
Total Manufacturing Costs to Account For			506,000
Ending Work-in-Process Inventory			(62,000)
Cost of Goods Manufactured			$ 444,000

Requirement 2

Unit product cost = Cost of goods manufactured / Total units produced

= $444,000 / 3,700 lamps

= $120 per lamp

E16-21 Computing cost of goods manufactured and cost of goods sold

Learning Objective 3

COGM: $211,000

Use the following information for a manufacturer to compute cost of goods manufactured and cost of goods sold:

Balances:	**Beginning**	**Ending**
Direct Materials	$ 27,000	$ 28,000
Work-in-Process Inventory	40,000	32,000
Finished Goods Inventory	18,000	25,000
Other information:		
Purchases of direct materials		$ 73,000
Direct labor		88,000
Manufacturing overhead		43,000

SOLUTION

Beginning Work-in-Process Inventory			$ 40,000
Direct Materials Used:			
Beginning Direct Materials	$ 27,000		
Purchases of Direct Materials	73,000		
Direct Materials Available for Use	100,000		
Ending Direct Materials	(28,000)		
Direct Materials Used		$ 72,000	
Direct Labor		88,000	
Manufacturing Overhead		43,000	
Total Manufacturing Costs Incurred During the Year			203,000
Total Manufacturing Costs to Account For			243,000
Ending Work-in-Process Inventory			(32,000)
Cost of Goods Manufactured			$ 211,000

Beginning Finished Goods Inventory	$ 18,000	
Cost of Goods Manufactured	211,000	[above]
Cost of Goods Available for Sale	229,000	
Ending Finished Goods Inventory	(25,000)	
Cost of Goods Sold	$ 204,000	

E16-22 Understanding today's business environment

Learning Objective 4

Match the following terms to the appropriate statement. Some terms may be used more than once, and some terms may not be used at all.

E-commerce	Just-in-time management (JIT)
Enterprise resource planning (ERP)	Total quality management (TQM)

a. A management system that focuses on maintaining lean inventories while producing products as needed by the customer.

b. A philosophy designed to integrate all organizational areas in order to provide customers with superior products and services while meeting organizational objectives.

c. Integrates all of a company's functions, departments, and data into a single system.

d. Adopted by firms to conduct business on the Internet.

SOLUTION

a. JIT

b. TQM

c. ERP

d. E-Commerce

E16-23 Calculating income and cost per service for a service company

Learning Objectives 3, 5

1. $9,304

Buddy Grooming provides grooming services for pets. In April, the company earned $16,300 in revenues and incurred the following operating costs to groom 660 dogs:

Wages Expense	$ 4,061
Grooming Supplies Expense	1,675
Building Rent Expense	900
Utilities Expense	305
Depreciation Expense—Equipment	55

Requirements

1. What is Buddy's operating income for April?
2. What is the cost of service to groom one dog?

SOLUTION

Requirement 1

Grooming Revenue		$ 16,300
Expenses:		
Wages Expense	$ 4,061	
Grooming Supplies Expense	1,675	
Building Rent Expense	900	
Utilities Expense	305	
Depreciation Expense—Equipment	55	
Total Expenses		6,996
Operating Income		$ 9,304

Requirement 2

Cost of Service to Groom One Dog = Total expenses / Total number of dogs groomed

= $6,996 / 660 dogs

= $10.60 per dog

E16-24 Calculating income and cost per unit for a merchandising company

Learning Objectives 3, 5

2. $12.42

Conway Brush Company sells standard hair brushes. The following information summarizes Conway's operating activities for 2018:

Selling and Administrative Expenses	$ 47,058
Purchases	85,800
Net Sales Revenue	151,800
Merchandise Inventory, January 1, 2018	7,920
Merchandise Inventory, December 31, 2018	11,748

Requirements

1. Calculate the operating income for 2018.
2. Conway sold 6,600 brushes in 2018. Compute the unit cost for one brush.

SOLUTION

Requirement 1

Net Sales Revenue		$ 151,800
Cost of Goods Sold:		
Beginning Merchandise Inventory	$ 7,920	
Purchases	85,800	
Cost of Goods Available for Sale	93,720	
Ending Merchandise Inventory	(11,748)	
Cost of Goods Sold		81,972
Gross Profit		69,828
Selling and Administrative Expenses		47,058
Operating Income		$ 22,770

Requirement 2

Unit cost for one brush = Cost of goods sold / Total units sold

= $81,972 / 6,600 brushes

= $12.42 per brush

Problems (Group A)

P16-25A Applying ethical standards

Learning Objective 1

Natalia Wallace is the new controller for Smart Software, Inc. which develops and sells education software. Shortly before the December 31 fiscal year-end, James Cauvet, the company president, asks Wallace how things look for the year-end numbers. He is not happy to learn that earnings growth may be below 13% for the first time in the company's five-year history. Cauvet explains that financial analysts have again predicted a 13% earnings growth for the company and that he does not intend to disappoint them. He suggests that Wallace talk to the assistant controller, who can explain how the previous controller dealt with such situations. The assistant controller suggests the following strategies:

a. Persuade suppliers to postpone billing $13,000 in invoices until January 1.

b. Record as sales $115,000 in certain software awaiting sale that is held in a public warehouse.

c. Delay the year-end closing a few days into January of the next year so that some of the next year's sales are included in this year's sales.

d. Reduce the estimated Bad Debts Expense from 5% of Sales Revenue to 3%, given the company's continued strong performance.

e. Postpone routine monthly maintenance expenditures from December to January.

Requirements

1. Which of these suggested strategies are inconsistent with IMA standards?
2. How might these inconsistencies affect the company's creditors and stockholders?
3. What should Wallace do if Cauvet insists that she follow all of these suggestions?

SOLUTION

Students' responses will vary. Illustrative answers follow.

Requirement 1

a. If the goods have been received, postponing recording of the purchases understates liabilities. This is unethical and inconsistent with the IMA standards even if the suppliers agree to delay billing.

b. The software has not been sold. Therefore, it would be inconsistent with the IMA standards to record it as sales.

c. Delaying year-end closing incorrectly records next year's sales in this year's sales. This is unethical and inconsistent with the IMA standards.

d. The appropriate allowance for bad debts is a difficult judgment. The decision should not be driven by the desire to meet a profit goal. It should be based on the likelihood that the company will not collect the debts. We cannot determine this without more information. However, since the company emphasizes earnings growth, which can lead to sales to customers with weaker credit records, reducing the allowance seems questionable. It is not clear whether this strategy is inconsistent with the IMA standards.

e. If the maintenance is postponed, there is no transaction to record. This strategy is beyond the responsibility of the controller, so it does not violate IMA standards.

Requirement 2

The inconsistencies noted for Smart Software, Inc. particularly impact the financial statement information provided by financial accounting to external users, such as creditors and stockholders. They will be led to believe the operating performance (profitability) of the company is better than it really is. This misrepresentation may result in the investors holding the stock when they may have sold it with the correct information. Similarly, creditors may grant credit to the company with the false income information when they may not grant credit with the correct income information.

Requirement 3

The controller should resist attempts to implement a, b, and c and should gather more information about d. If the President ignores Wallace, then Wallace needs to consider if she wants to work for a company that engages in unethical behavior. Accountants should not be associated with any unethical behavior, and Wallace should resign.

P16-26A Classifying period costs and product costs

Learning Objective 2

Lawlor, Inc. is the manufacturer of lawn care equipment. The company incurs the following costs while manufacturing weed trimmers:

- Shaft and handle of weed trimmer
- Motor of weed trimmer
- Factory labor for workers assembling weed trimmers
- Nylon thread used by the weed trimmer (not traced to the product)
- Glue to hold the housing together
- Plant janitorial wages
- Depreciation on factory equipment
- Rent on plant
- Sales commissions
- Administrative salaries
- Plant utilities
- Shipping costs to deliver finished weed trimmers to customers

Requirements

1. Describe the difference between period costs and product costs.
2. Classify Lawlor's costs as period costs or product costs. If the costs are product costs, further classify them as direct materials, direct labor, or manufacturing overhead.

SOLUTION

Requirement 1

Period costs are non-manufacturing costs that are expensed in the accounting period in which they are incurred.

Product costs are all costs of purchasing or making a product. These costs are recorded as an asset (inventory) on the balance sheet until the asset is sold. The cost is then transferred to an expense account (Cost of Goods Sold) on the income statement. Product costs include direct materials, direct labor, and manufacturing overhead.

On the income statement, Cost of Goods Sold (product cost) is subtracted from Sales Revenue to determine gross profit. The period costs are then subtracted to determine operating income.

P16-26A, cont.

Requirement 2

Cost:	Period Cost	Product Cost: Direct Materials	Product Cost: Direct Labor	Product Cost: Manufacturing Overhead
Shaft and handle of weed trimmer		X		
Motor of weed trimmer		X		
Factory labor for workers assembling weed trimmers			X	
Nylon thread used by the weed trimmer (not traced to the product)				X
Glue to hold housing together				X
Plant janitorial wages				X
Depreciation on factory equipment				X
Rent on plant				X
Sales commissions	X			
Administrative salaries	X			
Plant utilities				X
Shipping costs to deliver finished weed trimmers to customers	X			

P16-27A Calculating cost of goods sold for merchandising and manufacturing companies

Learning Objective 3

3. Company B: $217,800

Below are data for two companies:

	Company A	Company B
Beginning balances:		
Merchandise Inventory	$ 10,600	
Finished Goods Inventory		$ 15,000
Ending balances:		
Merchandise Inventory	13,100	
Finished Goods Inventory		11,700
Net Purchases	154,500	
Cost of Goods Manufactured		214,500

Requirements

1. Define the three business types: service, merchandising, and manufacturing.
2. Based on the data given for the two companies, determine the business type of each one.
3. Calculate the cost of goods sold for each company.

SOLUTION

Requirement 1

Service companies sell services rather than products. They sell time, skills, and knowledge. Merchandising companies resell products previously bought from suppliers. Manufacturing companies use labor, equipment, supplies, and facilities to convert raw materials into new finished products.

Requirement 2

Company A is a merchandising company. Company B is a manufacturing company. The company types can be determined by the account names in the ledger.

P16-27A, cont.

Requirement 3

Company A:

Beginning Merchandise Inventory	$ 10,600
Purchases (net)	154,500
Cost of Goods Available for Sale	165,100
Ending Merchandise Inventory	(13,100)
Cost of Goods Sold	$ 152,000

Company B:

Beginning Finished Goods Inventory	$ 15,000
Cost of Goods Manufactured	214,500
Cost of Goods Available for Sale	229,500
Ending Finished Goods Inventory	(11,700)
Cost of Goods Sold	$ 217,800

P16-28A Preparing a schedule of cost of goods manufactured and an income statement for a manufacturing company

Learning Objective 3

2. Operating income: $23,200

Gourmet Bones manufactures its own brand of pet chew bones. At the end of December 2018, the accounting records showed the following:

Balances:	**Beginning**	**Ending**
Direct Materials	$ 13,500	$ 7,500
Work-in-Process Inventory	0	3,500
Finished Goods Inventory	0	5,200
Other information:		
Direct materials purchases		$ 36,000
Plant janitorial services		700
Sales salaries		6,000
Delivery costs		1,300
Net sales revenue		107,000
Utilities for plant		1,300
Rent on plant		17,000
Customer service hotline costs		1,200
Direct labor		23,000

Requirements

1. Prepare a schedule of cost of goods manufactured for Gourmet Bones for the year ended December 31, 2018.
2. Prepare an income statement for Gourmet Bones for the year ended December 31, 2018.
3. How does the format of the income statement for Gourmet Bones differ from the income statement of a merchandiser?
4. Gourmet Bones manufactured 17,900 units of its product in 2018. Compute the company's unit product cost for the year, rounded to the nearest cent.

P16-28A, cont.

SOLUTION

Requirement 1

GOURMET BONES
Schedule of Cost of Goods Manufactured
Year Ended December 31, 2018

Beginning Work-in-Process Inventory			$ 0
Direct Materials Used:			
Beginning Direct Materials	$ 13,500		
Purchases of Direct Materials	36,000		
Direct Materials Available for Use	49,500		
Ending Direct Materials	(7,500)		
Direct Materials Used		$ 42,000	
Direct Labor		23,000	
Manufacturing Overhead:			
Plant janitorial services	700		
Utilities for plant	1,300		
Rent on plant	17,000		
Total Manufacturing Overhead		19,000	
Total Manufacturing Costs Incurred during the Year			84,000
Total Manufacturing Costs to Account For			84,000
Ending Work-in-Process Inventory			(3,500)
Cost of Goods Manufactured			$ 80,500

P16-28A, cont.
Requirement 2

GOURMET BONES Income Statement Year Ended December 31, 2018		
Revenues:		
Net Sales Revenue		$ 107,000
Cost of Goods Sold:		
Beginning Finished Goods Inventory	$ 0	
Cost of Goods Manufactured*	80,500	
Cost of Goods Available for Sale	80,500	
Ending Finished Goods Inventory	(5,200)	
Cost of Goods Sold		75,300
Gross Profit		31,700
Selling and Administrative Expenses:		
Sales Salaries Expense	6,000	
Delivery Expense	1,300	
Customer Service Hotline Expense	1,200	
Total Selling and Administrative Expenses		8,500
Operating Income (Loss)		$ 23,200

* From the Schedule of Cost of Goods Manufactured in Requirement 1.

Requirement 3

For a manufacturing company, cost of goods sold on the income statement is based on cost of goods manufactured and the change in Finished Goods Inventory. For a merchandising company, cost of goods sold on the income statement is based on cost of merchandise purchased (including freight in) and the change in Merchandise Inventory.

Requirement 4

Unit product cost	=	Cost of goods manufactured / Total units produced
	=	$80,500 / 17,900 units
	=	$4.50 per unit (rounded to nearest cent)

P16-29A Preparing a schedule of cost of goods manufactured and an income statement for a manufacturing company

Learning Objectives 3

COGM: $182,000

Certain item descriptions and amounts are missing from the monthly schedule of cost of goods manufactured and income statement of Elly Manufacturing Company. Fill in the blanks with the missing words, and replace the Xs with the correct amounts.

ELLY MANUFACTURING COMPANY

____

____________ June 30, 2018

Beginning ______________			$ 27,000
Direct ____________:			
Beginning Direct Materials	$ X		
Purchases of Direct Materials	56,000		
______________	84,000		
Ending Direct Materials	(20,000)		
Direct ____________		$ X	
Direct ____________		X	
Manufacturing Overhead		44,000	
Total ________ Costs ________			180,000
Total ________ Costs ________			X
Ending ______________			(25,000)
______________			$ X

P16-29A, cont.

ELLY MANUFACTURING COMPANY		
____________		
________ June 30, 2018		
Net Sales Revenue		$ X
Cost of Goods Sold:		
Beginning ________	$ 110,000	
________	X	
Cost of Goods ________	X	
Ending ________	X	
Cost of Goods Sold		232,000
Gross Profit		258,000
________ Expenses:		
Selling Expenses	98,000	
Administrative Expenses	X	
Total ________		160,000
________ Income		$ X

SOLUTION

ELLY MANUFACTURING COMPANY
Schedule of Cost of Goods Manufactured
Month Ended June 30, 2018

Beginning Work-in-Process Inventory			$ 27,000
Direct Materials Used:			
Beginning Direct Materials	$ **28,000**		
Purchases of Direct Materials	56,000		
Direct Materials Available for Use	84,000		
Ending Direct Materials	(20,000)		
Direct Materials Used		**64,000**	
Direct Labor		**72,000**	
Manufacturing Overhead		44,000	
Total Manufacturing Costs Incurred During the Month			180,000
Total Manufacturing Costs to Account For			**207,000**
Ending Work-in-Process Inventory			(25,000)
Cost of Goods Manufactured			$ **182,000**

P16-29A, cont.

Missing Amounts:

Beginning Direct Materials

Direct Materials Available for Use	$ 84,000
Purchases of Direct Materials	(56,000)
Beginning Direct Materials	$ 28,000

Direct Materials Used:

Direct Materials Available for Use	$ 84,000
Ending Direct Materials	(20,000)
Direct Materials Used	$ 64,000

Direct Labor:

Total Manufacturing Costs Incurred During the Month	$ 180,000
Manufacturing Overhead	(44,000)
Direct Materials Used [calculated above]	(64,000)
Direct Labor	$ 72,000

P16-29A, cont.

Total Manufacturing Costs to Account For:

Beginning Work-in-Process Inventory	$ 27,000
Total Manufacturing Costs Incurred During the Month	180,000
Total Manufacturing Costs to Account For	$ 207,000

Cost of Goods Manufactured:

Total Manufacturing Costs to Account For [calculated above]	$ 207,000
Ending Work-in-Process Inventory	(25,000)
Cost of Goods Manufactured	$ 182,000

ELLY MANUFACTURING COMPANY
Income Statement
Month Ended June 30, 2018

Net Sales Revenue		$ **490,000**
Cost of Goods Sold:		
Beginning Finished Goods Inventory	$ 110,000	
Cost of Goods Manufactured	**182,000**	
Cost of Goods Available for Sale	**292,000**	
Ending Finished Goods Inventory	**(60,000)**	
Cost of Goods Sold		232,000
Gross Profit		258,000
Selling and Administrative Expenses:		
Selling Expenses	98,000	
Administrative Expenses	**62,000**	
Total Selling and Administrative Expenses		160,000
Operating Income		$ **98,000**

Missing Amounts:

Net Sales Revenue:

Cost of Goods Sold	$ 232,000
Gross Profit	258,000
Net Sales Revenue	$ 490,000

P16-29A, cont.

Cost of Goods Manufactured:
[From the Schedule of Cost of Goods Manufactured]

Cost of Goods Available for Sale:

Beginning Finished Goods Inventory	$ 110,000
Cost of Goods Manufactured	182,000
Cost of Goods Available for Sale	$ 292,000

Ending Finished Goods Inventory:

Cost of Goods Available for Sale [calculated above]	$ 292,000
Cost of Goods Sold	(232,000)
Ending Finished Goods Inventory	$ 60,000

Administrative Expenses:

Total Selling and Administrative Expenses	$ 160,000
Selling Expenses	(98,000)
Administrative Expenses	$ 62,000

Operating Income:

Gross Profit	$ 258,000
Total Selling and Administrative Expenses	(160,000)
Operating Income	$ 98,000

P16-30A Determining flow of costs through a manufacturer's inventory accounts

Learning Objective 3

3. $26,400,000

Root Shoe Company makes loafers. During the most recent year, Root incurred total manufacturing costs of $26,300,000. Of this amount, $2,000,000 was direct materials used and $19,800,000 was direct labor. Beginning balances for the year were Direct Materials, $700,000; Work-in-Process Inventory, $1,500,000; and Finished Goods Inventory, $400,000. At the end of the year, balances were Direct Materials, $800,000; Work-in-Process Inventory, $1,200,000; and Finished Goods Inventory, $600,000.

Requirements

Analyze the inventory accounts to determine:

1. Cost of direct materials purchased during the year.
2. Cost of goods manufactured for the year.
3. Cost of goods sold for the year.

SOLUTION

Requirement 1

Cost of direct materials purchased:

Direct Materials Used	=	Beginning Direct Materials	+	Purchases of Direct Materials	–	Ending Direct Materials

Solving for cost of direct materials purchased:

Purchases of Direct Materials	=	Direct Materials Used	+	Ending Direct Materials	–	Beginning Direct Materials
	=	$2,000,000	+	$800,000	–	$700,000
	=	$2,100,000				

Requirement 2

Cost of goods manufactured for the year:

Cost of Goods Manufactured	=	Beginning Work-in-Process Inventory	+	Total Manufacturing Costs Incurred	–	Ending Work-in-Process Inventory
	=	$1,500,000	+	$26,300,000	–	$1,200,000
	=	$26,600,000				

P16-30A, cont.

Requirement 3

Cost of goods sold for the year:

Cost of Goods Sold	=	Beginning Finished Goods Inventory	+	Cost of Goods Manufactured	–	Ending Finished Goods Inventory
	=	$400,000	+	$26,600,000 [calculated in 2]	–	$600,000
	=	$26,400,000				

P16-31A Preparing an income statement and calculating unit cost for a service company

Learning Objectives 3, 5

2. $37.72

The Windshield Doctors repair chips in car windshields. The company incurred the following operating costs for the month of March 2018:

Salaries and wages	$ 12,000
Windshield repair materials	4,600
Depreciation on truck	300
Depreciation on building and equipment	1,200
Supplies used	300
Utilities	460

The Windshield Doctors earned $23,000 in service revenues for the month of March by repairing 500 windshields. All costs shown are considered to be directly related to the repair service.

Requirements

1. Prepare an income statement for the month of March.
2. Compute the cost per unit of repairing one windshield.
3. The manager of Windshield Doctors must keep unit operating cost below $50 per windshield in order to get his bonus. Did he meet the goal?

SOLUTION

Requirement 1

THE WINDSHIELD DOCTORS
Income Statement
Month Ended March 31, 2018

Revenues:		
Net Service Revenue		$ 23,000
Expenses:		
Salaries and Wages Expense	$ 12,000	
Materials Expense	4,600	
Depreciation Expense—Truck	300	
Depreciation Expense—Building and Equipment	1,200	
Supplies Expense	300	
Utilities Expense	460	
Total Expenses		18,860
Operating Income		$ 4,140

P16-31A, cont.

Requirement 2

Unit cost	=	Total expenses / Total windshields repaired
	=	$18,860 / 500 windshields
	=	$37.72 per windshield

Requirement 3

Yes. The actual unit cost per windshield of $37.72 is less than $50.

P16-32A Preparing an income statement and calculating unit cost for a merchandising company

Learning Objectives 3, 5

1. Operating income: $15,150

Clyde Conway owns Clyde's Pets, a small retail shop selling pet supplies. On December 31, 2018, the accounting records of Clyde's Pets showed the following:

Merchandise Inventory on December 31, 2018	$ 10,100
Merchandise Inventory on January 1, 2018	15,900
Net Sales Revenue	56,000
Utilities Expense for the shop	3,300
Rent for the shop	4,100
Sales Commissions	2,650
Purchases of Merchandise Inventory	25,000

Requirements

1. Prepare an income statement for Clyde's Pets for the year ended December 31, 2018.
2. Clyde's Pets sold 3,850 units. Determine the unit cost of the merchandise sold, rounded to the nearest cent.

P16-32A. cont.

SOLUTION

Requirement 1

CLYDE'S PETS Income Statement Year Ended December 31, 2018		
Revenues:		
Net Sales Revenue		$ 56,000
Cost of Goods Sold:		
Beginning Merchandise Inventory	$ 15,900	
Purchases of Merchandise	25,000	
Cost of Goods Available for Sale	40,900	
Ending Merchandise Inventory	(10,100)	
Cost of Goods Sold		30,800
Gross Profit		25,200
Selling and Administrative Expenses:		
Utilities Expense	3,300	
Rent Expense	4,100	
Sales Commission Expense	2,650	
Total Selling and Administrative Expenses		10,050
Operating Income		$ 15,150

Requirement 2

Unit cost = Cost of goods sold / Total units sold

= $30,800 / 3,850 units

= $8.00 per unit

Problems (Group B)

P16-33B Applying ethical standards

Learning Objective 1

Ava Borzi is the new controller for Halo Software, Inc. which develops and sells education software. Shortly before the December 31 fiscal year-end, Jeremy Busch, the company president, asks Borzi how things look for the year-end numbers. He is not happy to learn that earnings growth may be below 9% for the first time in the company's five-year history. Busch explains that financial analysts have again predicted a 9% earnings growth for the company and that he does not intend to disappoint them. He suggests that Borzi talk to the assistant controller, who can explain how the previous controller dealt with such situations. The assistant controller suggests the following strategies:

a. Persuade suppliers to postpone billing $18,000 in invoices until January 1.

b. Record as sales $120,000 in certain software awaiting sale that is held in a public warehouse.

c. Delay the year-end closing a few days into January of the next year so that some of the next year's sales are included in this year's sales.

d. Reduce the estimated Bad Debts Expense from 3% of Sales Revenue to 2%, given the company's continued strong performance.

e. Postpone routine monthly maintenance expenditures from December to January.

Requirements

1. Which of these suggested strategies are inconsistent with IMA standards?
2. How might these inconsistencies affect the company's creditors and stockholders?
3. What should Borzi do if Busch insists that she follow all of these suggestions?

P16-33B, cont.

SOLUTION

Students' responses will vary. Illustrative answers follow.

Requirement 1

a. If the goods have been received, postponing recording of the purchases understates liabilities. This is unethical and inconsistent with the IMA standards even if the suppliers agree to delay billing.

b. The software has not been sold. Therefore, it would be inconsistent with the IMA standards to record it as sales.

c. Delaying year-end closing incorrectly records next year's sales in this year's sales. This is unethical and inconsistent with the IMA standards.

d. The appropriate allowance for bad debts is a difficult judgment. The decision should not be driven by the desire to meet a profit goal. It should be based on the likelihood that the company will not collect the debts. We cannot determine this without more information. However, since the company emphasizes earnings growth, which can lead to sales to customers with weaker credit records, reducing the allowance seems questionable. It is not clear whether this strategy is inconsistent with the IMA standards.

e. If the maintenance is postponed, there is no transaction to record. This strategy is beyond the responsibility of the controller, so it does not violate IMA standards.

Requirement 2

The inconsistencies noted for Halo Software, Inc. particularly impact the financial statement information provided by financial accounting to external users, such as creditors and stockholders. They will be led to believe the operating performance (profitability) of the company is better than it really is. This misrepresentation may result in the investors holding the stock when they may have sold it with the correct information. Similarly, creditors may grant credit to the company with the false income information when they may not grant credit with the correct income information.

Requirement 3

The controller should resist attempts to implement a, b, and c and should gather more information about d. If the President ignores Borzi, then Borzi needs to consider if she wants to work for a company that engages in unethical behavior. Borzi should not be associated with unethical behavior and should resign.

P16-34B Classifying period costs and product costs

Learning Objective 2

Langley, Inc. is the manufacturer of lawn care equipment. The company incurs the following costs while manufacturing edgers:

- Handle and shaft of edger
- Motor of edger
- Factory labor for workers assembling edgers
- Lubricant used on bearings in the edger (not traced to the product)
- Glue to hold the housing together
- Plant janitorial wages
- Depreciation on factory equipment
- Rent on plant
- Sales commissions
- Administrative salaries
- Plant utilities
- Shipping costs to deliver finished edgers to customers

Requirements

1. Describe the difference between period costs and product costs.
2. Classify Langley's costs as period costs or product costs. If the costs are product costs, further classify them as direct materials, direct labor, or manufacturing overhead.

SOLUTION

Requirement 1

Period costs are non-manufacturing costs that are expensed in the accounting period in which they are incurred.

Product costs are the costs of purchasing or making a product. These costs are recorded as an asset (inventory) on the balance sheet until the asset is sold. The cost is then transferred to an expense account (Cost of Goods Sold) on the income statement. Product costs include direct materials, direct labor, and manufacturing overhead.

On the income statement, Cost of Goods Sold (product cost) is subtracted from Sales Revenue to determine gross profit. The period costs are then subtracted from gross profit to determine operating income.

P16-34B, cont.

Requirement 2

Cost:	Period Cost	Product Cost: Direct Materials	Product Cost: Direct Labor	Product Cost: Manufacturing Overhead
Handle and shaft of edger		X		
Motor of edger		X		
Factory labor for workers assembling edgers			X	
Lubricant used on bearings in the edger (not traced to the product)				X
Glue to hold housing together				X
Plant janitorial wages				X
Depreciation on factory equipment				X
Rent on plant				X
Sales commissions	X			
Administrative salaries	X			
Plant utilities				X
Shipping costs to deliver finished edgers to customers	X			

P16-35B Calculating cost of goods sold for merchandising and manufacturing companies

Learning Objective 3

3. Company 2: $218,600

Below are data for two companies:

	Company 1	Company 2
Beginning balances:		
Merchandise Inventory	$ 11,600	
Finished Goods Inventory		$ 15,400
Ending balances:		
Merchandise Inventory	12,400	
Finished Goods Inventory		11,300
Net Purchases	152,500	
Cost of Goods Manufactured		214,500

Requirements

1. Define the three business types: service, merchandising, and manufacturing.
2. Based on the data given for the two companies, determine the business type of each one.
3. Calculate the cost of goods sold for each company.

SOLUTION

Requirement 1

Service companies sell services rather than products. They sell time, skills, and knowledge. Merchandising companies resell products previously bought from suppliers. Manufacturing companies use labor, equipment, supplies, and facilities to convert raw materials into new finished products.

Requirement 2

Company 1 is a merchandising company. Company 2 is a manufacturing company. The company type can be determined by the account names in the ledger.

P16-35B, cont.

Requirement 3

Company 1:

Beginning Merchandise Inventory	$ 11,600
Purchases (net)	152,500
Cost of Goods Available for Sale	164,100
Ending Merchandise Inventory	(12,400)
Cost of Goods Sold	$ 151,700

Company 2:

Beginning Finished Goods Inventory	$ 15,400
Cost of Goods Manufactured	214,500
Cost of Goods Available for Sale	229,900
Ending Finished Goods Inventory	(11,300)
Cost of Goods Sold	$ 218,600

P16-36B Preparing a schedule of cost of goods manufactured and an income statement for a manufacturing company

Learning Objective 3

2. Operating income: $44,500

Chewy Bones manufactures its own brand of pet chew bones. At the end of December 2018, the accounting records showed the following:

Balances:	**Beginning**	**Ending**
Direct Materials	$ 13,400	$ 10,500
Work-in-Process Inventory	0	1,500
Finished Goods Inventory	0	5,400
Other information:		
Direct materials purchases		$ 39,000
Plant janitorial services		900
Sales salaries		5,100
Delivery costs		1,700
Net sales revenue		115,000
Utilities for plant		1,200
Rent on plant		9,000
Customer service hotline costs		1,600
Direct labor		16,000

Requirements

1. Prepare a schedule of cost of goods manufactured for Chewy Bones for the year ended December 31, 2018.
2. Prepare an income statement for Chewy Bones for the year ended December 31, 2018.
3. How does the format of the income statement for Chewy Bones differ from the income statement of a merchandiser?
4. Chewy Bones manufactured 17,500 units of its product in 2018. Compute the company's unit product cost for the year, rounded to the nearest cent.

P16-36B, cont.

SOLUTION

Requirement 1

CHEWY BONES			
Schedule of Cost of Goods Manufactured			
Year Ended December 31, 2018			
Beginning Work-in-Process Inventory			$ 0
Direct Materials Used:			
Beginning Direct Materials	$ 13,400		
Purchases of Direct Materials	39,000		
Direct Materials Available for Use	52,400		
Ending Direct Materials	(10,500)		
Direct Materials Used		$ 41,900	
Direct Labor		16,000	
Manufacturing Overhead:			
Plant janitorial services	900		
Utilities for plant	1,200		
Rent on plant	9,000		
Total Manufacturing Overhead		11,100	
Total Manufacturing Costs Incurred during the Year			69,000
Total Manufacturing Costs to Account For			69,000
Ending Work-in-Process Inventory			(1,500)
Cost of Goods Manufactured			$ 67,500

P16-36B, cont.
Requirement 2

CHEWY BONES Income Statement Year Ended December 31, 2018		
Revenues:		
Net Sales Revenue		$ 115,000
Cost of Goods Sold:		
Beginning Finished Goods Inventory	$ 0	
Cost of Goods Manufactured*	67,500	
Cost of Goods Available for Sale	67,500	
Ending Finished Goods Inventory	(5,400)	
Cost of Goods Sold		62,100
Gross Profit		52,900
Selling and Administrative Expenses:		
Sales Salaries Expense	5,100	
Delivery Expense	1,700	
Customer Service Hotline Expense	1,600	
Total Selling and Administrative Expenses		8,400
Operating Income (Loss)		$ 44,500

* From the Schedule of Cost of Goods Manufactured in Requirement 1.

Requirement 3

For a manufacturing company, cost of goods sold on the income statement is based on cost of goods manufactured and the change in Finished Goods Inventory. For a merchandising company, cost of goods sold on the income statement is based on cost of merchandise purchased (including freight in) and the change in Merchandise Inventory.

Requirement 4

Unit cost	=	Cost of goods manufactured / Total units produced
	=	$67,500 / 17,500 units
	=	$3.86 per unit (rounded to the nearest cent)

P16-37B Preparing a schedule of cost of goods manufactured and an income statement for a manufacturing company

Learning Objective 3

COGM: $174,000

Certain item descriptions and amounts are missing from the monthly schedule of cost of goods manufactured and income statement of Charlie Manufacturing Company. Fill in the blanks with the missing words, and replace the Xs with the correct amounts.

CHARLIE MANUFACTURING COMPANY			
______________________________			
______________ June 30, 2018			
Beginning ______________________			$ 26,000
Direct ______________:			
Beginning Direct Materials	$ X		
Purchases of Direct Materials	51,000		
______________________________	81,000		
Ending Direct Materials	(26,000)		
Direct ______________		$ X	
Direct ______________		X	
Manufacturing Overhead		50,000	
Total ________ Costs ____________			177,000
Total ________ Costs ____________			X
Ending ______________________			(29,000)
______________________________			$ X

P16-37B, cont.

CHARLIE MANUFACTURING COMPANY		
______ June 30, 2018		
Net Sales Revenue		$ X
Cost of Goods Sold:		
Beginning ______	$ 118,000	
______	X	
Cost of Goods ______	X	
Ending ______	X	
Cost of Goods Sold		232,000
Gross Profit		268,000
______ Expenses:		
Selling Expenses	90,000	
Administrative Expenses	X	
Total ______		150,000
______ Income		$ X

SOLUTION

CHARLIE MANUFACTURING COMPANY
Schedule of Cost of Goods Manufactured
Month Ended June 30, 2018

Beginning Work-in-Process Inventory			$ 26,000
Direct Materials Used:			
Beginning Direct Materials	$ **30,000**		
Purchases of Direct Materials	51,000		
Direct Materials Available for Use	81,000		
Ending Direct Materials	(26,000)		
Direct Materials Used		$ **55,000**	
Direct Labor		**72,000**	
Manufacturing Overhead		50,000	
Total Manufacturing Costs Incurred During the Month			177,000
Total Manufacturing Costs to Account For			**203,000**
Ending Work-in-Process Inventory			(29,000)
Cost of Goods Manufactured			$ **174,000**

P16-37B, cont.

Missing Amounts:

Beginning Direct Materials:

Direct Materials Available for Use	$ 81,000
Purchases of Direct Materials	(51,000)
Beginning Direct Materials	$ 30,000

Direct Materials Used:

Direct Materials Available for Use	$ 81,000
Ending Direct Materials	(26,000)
Direct Materials Used	$ 55,000

Direct Labor:

Total Manufacturing Costs Incurred During the Month	$ 177,000
Manufacturing Overhead	(50,000)
Direct Materials Used [calculated above]	(55,000)
Direct Labor	$ 72,000

P16-37B, cont.

Total Manufacturing Costs to Account For:

Beginning Work-in-Process Inventory	$ 26,000
Total Manufacturing Costs Incurred During the Month	177,000
Total Manufacturing Costs to Account For	$ 203,000

Cost of Goods Manufactured:

Total Manufacturing Costs to Account For [calculated above]	$ 203,000
Ending Work-in-Process Inventory	(29,000)
Cost of Goods Manufactured	$ 174,000

CHARLIE MANUFACTURING COMPANY
Income Statement
Month Ended June 30, 2018

Net Sales Revenue		$ **500,000**
Cost of Goods Sold:		
Beginning Finished Goods Inventory	$ 118,000	
Cost of Goods Manufactured	**174,000**	
Cost of Goods Available for Sale	**292,000**	
Ending Finished Goods Inventory	**(60,000)**	
Cost of Goods Sold		232,000
Gross Profit		268,000
Selling and Administrative Expenses:		
Selling Expenses	90,000	
Administrative Expenses	**60,000**	
Total Selling and Administrative Expenses		150,000
Operating Income		$ **118,000**

Missing Amounts:

Net Sales Revenue:

Cost of Goods Sold	$ 232,000
Gross Profit	268,000
Net Sales Revenue	$ 500,000

P16-37B, cont.

Cost of Goods Manufactured:
[From the Schedule of Cost of Goods Manufactured]

Cost of Goods Available for Sale:

Beginning Finished Goods Inventory	$ 118,000
Cost of Goods Manufactured	174,000
Cost of Goods Available for Sale	$ 292,000

Ending Finished Goods Inventory:

Cost of Goods Available for Sale [calculated above]	$ 292,000
Cost of Goods Sold	(232,000)
Ending Finished Goods Inventory	$ 60,000

Administrative Expenses:

Total Selling and Administrative Expenses	$ 150,000
Selling Expenses	(90,000)
Administrative Expenses	$ 60,000

Operating Income:

Gross Profit	$ 268,000
Total Selling and Administrative Expenses	(150,000)
Operating Income	$ 118,000

P16-38B Determining the flow of costs through a manufacturer's inventory accounts

Learning Objective 3

3. $21,420,000

True Fit Shoe Company makes loafers. During the most recent year, True Fit incurred total manufacturing costs of $21,900,000. Of this amount, $2,600,000 was direct materials used and $14,800,000 was direct labor. Beginning balances for the year were Direct Materials, $700,000; Work-in-Process Inventory, $1,500,000; and Finished Goods Inventory, $1,100,000. At the end of the year, balances were Direct Materials, $800,000; Work-in-Process Inventory, $2,000,000; and Finished Goods Inventory, $1,080,000.

Requirements

1. Analyze the inventory accounts to determine:

2. Cost of direct materials purchased during the year.

3. Cost of goods manufactured for the year.

4. Cost of goods sold for the year.

SOLUTION

Requirement 1

Cost of direct materials purchased during the year:

Direct Materials Used	=	Beginning Direct Materials	+	Purchases of Direct Materials	–	Ending Direct Materials

Solving for cost of direct materials purchased:

Purchases of Direct Materials	=	Direct Materials Used	+	Ending Direct Materials	–	Beginning Direct Materials
	=	$2,600,000	+	$800,000	–	$700,000
	=	$2,700,000				

P16-38B, cont.

Requirement 2

Cost of goods manufactured for the year:

Cost of Goods Manufactured		Beginning Work-in-Process Inventory		Total Manufacturing Costs Incurred		Ending Work-in-Process Inventory
	=	$1,500,000	+	$21,900,000	–	$2,000,000
	=	$21,400,000				

Requirement 3

Cost of goods sold for the year:

Cost of Goods Sold		Beginning Finished Goods Inventory		Cost of Goods Manufactured		Ending Finished Goods Inventory
	=	$1,100,000	+	$21,400,000 [calculated in 2]	–	$1,080,000
	=	$21,420,000				

P16-39B Preparing an income statement and calculating unit cost for a service company

Learning Objectives 3, 5

2. $82.00

The Glass Doctors repair chips in car windshields. The company incurred the following operating costs for the month of July 2018:

Salaries and wages	$ 10,000
Windshield repair materials	4,100
Depreciation on truck	500
Depreciation on building and equipment	900
Supplies used	450
Utilities	4,550

The Glass Doctors earned $25,000 in service revenues for the month of July by repairing 250 windshields. All costs shown are considered to be directly related to the repair service.

Requirements

1. Prepare an income statement for the month of July.
2. Compute the cost per unit of repairing one windshield, rounded to the nearest cent.
3. The manager of The Glass Doctors must keep unit operating cost below $80 per windshield in order to get his bonus. Did he meet the goal?

SOLUTION

Requirement 1

THE GLASS DOCTORS
Income Statement
Month Ended July 31, 2018

Revenues:		
Net Service Revenue		$ 25,000
Expenses:		
Salaries and Wages Expense	$ 10,000	
Materials Expense	4,100	
Depreciation Expense—Truck	500	
Depreciation Expense—Building and Equipment	900	
Supplies Expense	450	
Utilities Expense	4,550	
Total Expenses		20,500
Operating Income		$ 4,500

P16-39B, cont.

Requirement 2

Unit cost	=	Total expenses / Total windshields repaired
	=	$20,500 / 250 windshields
	=	$82.00 per windshield

Requirement 3

No. The actual unit cost per windshield of $82.00 is greater than $80.

P16-40B Preparing an income statement and calculating unit cost for a merchandising company

Learning Objectives 3, 5

1. Operating income: $15,450

Dillon Young owns Dillon's Pets, a small retail shop selling pet supplies. On December 31, 2018, the accounting records for Dillon's Pets showed the following:

Merchandise Inventory on December 31, 2018	$ 10,500
Merchandise Inventory on January 1, 2018	16,000
Net Sales Revenue	56,000
Utilities Expense for the shop	3,200
Rent for the shop	4,100
Sales Commissions	2,750
Purchases of Merchandise Inventory	25,000

Requirements

1. Prepare an income statement for Dillon's Pets for the year ended December 31, 2018.
2. Dillon's Pets sold 5,550 units. Determine the unit cost of the merchandise sold, rounded to the nearest cent.

P16-40B, cont.

SOLUTION

Requirement 1

DILLON'S PETS
Income Statement
Year Ended December 31, 2018

Revenues:		
Net Sales Revenue		$ 56,000
Cost of Goods Sold:		
Beginning Merchandise Inventory	$ 16,000	
Purchases of Merchandise	25,000	
Cost of Goods Available for Sale	41,000	
Ending Merchandise Inventory	(10,500)	
Cost of Goods Sold		30,500
Gross Profit		25,500
Selling and Administrative Expenses:		
Utilities Expense	3,200	
Rent Expense	4,100	
Sales Commission Expense	2,750	
Total Selling and Administrative Expenses		10,050
Operating Income		$ 15,450

Requirement 2

Unit cost = Cost of goods sold / Total units sold

= $30,500 / 5,550 units

= $5.50 per unit (rounded to the nearest cent)

Using Excel

P16-41 Using Excel to classify manufacturing costs and to determine the cost of manufactured products.

Download an Excel template for this problem online in MyAccountingLab or at http://www.pearsonhighered.com/Horngren.

Fremont Troll House Cookies has been baking coconut cookies for 27 years. Classify manufacturing costs, and prepare schedules for the Cost of Goods Manufactured and the Cost of Goods Sold for the month ended March 31, 2018.

Requirements

1. Use Excel to classify the costs

a. Classify the costs as either period costs or product costs.

i. To classify the cost, click in the cell. A drop down arrow will appear to the right. Click the arrow and select either Product or Period.

b. Classify the product costs as direct materials, direct labor, or manufacturing overhead.

i. To identify the classification, click in the cell. A drop down arrow will appear to the right. Click the arrow. If it's a product cost, select direct materials, direct labor, or manufacturing overhead. If it's a period cost, select expense.

2. Complete the Schedule of Cost of Goods Manufactured. Use the blue shaded areas for inputs. Use the following amounts: direct materials used, $2,500; direct labor, $3,000; manufacturing overhead, $11,000; beginning Work-in-Process Inventory, $1,500; and ending Work-in-Process Inventory, $1,200.

a. Complete the heading

b. To select the correct report caption, click in the cell. A drop down arrow will appear to the right. Click the arrow and select the appropriate caption from the alphabetical list.

c. Indent the captions for Direct Materials Used, Direct Labor, and Manufacturing Overhead. Use the Increase Indent button on the Home tab in the Alignment section.

d. Complete the amounts to the right. Use the Excel function SUM to sum amounts on the schedule.

e. Format the cells requiring dollar signs.

f. Format underlines or double underlines as needed.

g. Boldface the total.

3. Using the results from Requirement 2, calculate the cost per unit for goods manufactured assuming 16,000 units were manufactured. Use the blue shaded areas for inputs. Use a formula to calculate the cost per unit.

4. Complete the Cost of Goods Sold schedule. Beginning Finished Goods had 500 units that had a cost of $0.98 each. Ending Finished Goods Inventory had 700 units.

a. Complete the heading.

b. Using the results from Requirement 3, calculate cost of goods sold assuming FIFO inventory costing is used.

c. To select the correct report caption, click in the cell. A drop down arrow will appear to the right. Click the arrow and select the appropriate caption from the alphabetical list.

d. Complete the amounts to the right. Use the Excel function SUM to derive the Cost of Goods Sold.

e. Format the cells requiring dollar signs.

f. Format underlines or double underlines as needed.

g. Boldface the total.

SOLUTION

The student templates for *Using Excel* are available online in MyAccountingLab in the Multimedia Library or at http://www.pearsonhighered.com/Horngren. The solution to *Using Excel* is located in MyAccountingLab in the Instructor Resource Center or at http://www.pearsonhighered.com/Horngren.

Continuing Problem

P16-42

This is the first problem in a sequence of problems for Piedmont Computer Company, a manufacturer of personal computers and tablets. During its first month of manufacturing, Piedmont Computer Company incurred the following manufacturing costs:

Balances:	**Beginning**	**Ending**
Direct Materials	$ 10,500	$ 9,700
Work-in-Process Inventory	0	17,000
Finished Goods Inventory	0	31,000
Other information:		
Direct materials purchases		$ 16,000
Plant janitorial services		500
Sales salaries expense		10,000
Delivery expense		1,600
Sales revenue		1,100,000
Utilities for plant		16,000
Rent on plant		9,000
Customer service hotline costs		19,000
Direct labor		210,000

Prepare a schedule of cost of goods manufactured for Piedmont Computer Company for the month ended January 31, 2020.

SOLUTION

PIEDMONT COMPUTER COMPANY Schedule of Cost of Goods Manufactured Month Ended January 31, 2020			
Beginning Work-in-Process Inventory			$ 0
Direct Materials Used:			
Beginning Direct Materials	$ 10,500		
Purchases of Direct Materials	16,000		
Direct Materials Available for Use	26,500		
Ending Direct Materials	(9,700)		
Direct Materials Used		$ 16,800	
Direct Labor		210,000	
Manufacturing Overhead:			
Plant janitorial services	500		
Utilities for plant	16,000		
Rent on plant	9,000		
Total Manufacturing Overhead		25,500	
Total Manufacturing Costs Incurred during the Month			252,300
Total Manufacturing Costs to Account For			252,300
Ending Work-in-Process Inventory			(17,000)
Cost of Goods Manufactured			$ 235,300

Critical Thinking

Tying It All Together Case 16–1

Before you begin this assignment, review the Tying It All Together feature in the chapter.

Winnebago Industries, Inc. is a leading manufacturer of recreational vehicles (RVs), including motorized and towable products. The company designs, develops, manufactures, and markets RVs as well as supporting products and services. The RVs are sold to consumers through a dealer network. On the August 29, 2015, balance sheet, Winnebago reported inventory of approximately $112 million. Of this amount, approximately $12 million, about 11%, was Finished Goods Inventory (Notes to Consolidated Financial Statements, Note 3). Suppose Winnebago motor homes have an average sales price of $96,000 and cost of goods sold is 89% of sales. Thor Industries, Inc., a major competitor, has an average cost of goods sold of 86% of sales. For year ending August 29, 2015, Winnebago sold 9,097 motor homes (Form 10-K, Item 1 Business).

Requirements

1. Why would the Finished Goods Inventory be such a relatively small portion of total inventory?
2. What is the average cost of goods sold (in dollars) for a Winnebago motor home? What is the average gross profit?
3. If Winnebago could reduce production costs so that the average cost of goods sold is equal to their competitor's average cost of goods sold, how much more profit would Winnebago earn on each motor home sold?
4. Based on 2015 sales, how much would operating income increase if the company reduced the average cost of goods sold to equal their competitor's average cost of goods sold?
5. How could managers at Winnebago use managerial accounting to reduce costs and increase profits?

SOLUTION

Requirement 1

Winnebago's finished goods inventory is such a relatively small portion of total inventory because Winnebago manufactures the RVs and then sells them to dealerships for resale to consumers. The company does not own or operate dealerships. Therefore, Winnebago has a relatively small portion of Finished Goods Inventory. As soon as RVs are complete, Winnebago will want to sell them to the dealerships. The majority of Winnebago's inventory is in Raw Materials Inventory that will be used in the manufacturing process and Work–in–Process Inventory of the RVs started but not yet completed.

Requirement 2

Average cost of goods sold = Average sales price × Cost of goods sold % = $96,000 × 89% = $85,440.
Average gross profit = Average sales price – Average cost of goods sold = $96,000 – $85,440 = $10,560.

Requirement 3

Average cost of goods sold = Average sales price × Cost of goods sold % = \$96,000 × 86% = \$82,560. Average gross profit = Average sales price – Average cost of goods sold = \$96,000 – \$82,560 = \$13,440. Profits would increase by \$2,880 (\$13,440 – \$10,560) per motor home sold.

Requirement 4

Total increase in operating income = Average increase in profits per motor home × Number of motor homes = \$2,880 per motor home × 9,097 motor homes = \$26,199,360.

Requirement 5

Managerial accounting provides detailed information on all costs incurred by the company. Managers can use the information provided to analyze different types of costs, such as product costs and period costs, to determine where actual costs exceeded expected costs and then consider options to reduce those costs.

Decision Case 16-1

Power Switch, Inc. designs and manufactures switches used in telecommunications. Serious flooding throughout North Carolina affected Power Switch's facilities. Inventory was completely ruined, and the company's computer system, including all accounting records, was destroyed.

Before the disaster recovery specialists clean the buildings, Stephen Plum, the company controller, is anxious to salvage whatever records he can to support an insurance claim for the destroyed inventory. He is standing in what is left of the accounting department with Paul Lopez, the cost accountant.

"I didn't know mud could smell so bad," Paul says. "What should I be looking for?"

"Don't worry about beginning inventory numbers," responds Stephen, "we'll get them from last year's annual report. We need first-quarter cost data."

"I was working on the first-quarter results just before the storm hit," Paul says. "Look, my report is still in my desk drawer. All I can make out is that for the first quarter, direct material purchases were $476,000 and direct labor, manufacturing overhead, and total manufacturing costs to account for were $505,000, $245,000, and $1,425,000, respectively. Wait! Cost of goods available for sale was $1,340,000."

"Great," says Stephen. "I remember that sales for the period were approximately $1,700,000. Given our gross profit of 30%, that's all you should need."

Paul is not sure about that but decides to see what he can do with this information. The beginning inventory numbers were:

- Direct Materials, $113,000
- Work-in-Process, $229,000
- Finished Goods, $154,000

Requirements

1. Prepare a schedule showing each inventory account and the increases and decreases to each account. Use it to determine the ending inventories of Direct Materials, Work-in-Process, and Finished Goods.
2. Itemize a list of the cost of inventory lost.

Decision Case 16-1, cont.

SOLUTION

Requirement 1

Shown in the schedule, below, the ending inventories are: Direct Materials, $143,000; Work-in-Process Inventory, $239,000; and Finished Goods Inventory, $150,000.

POWERSWITCH, INC. Flow of Costs Schedule For the 1st Quarter					
Raw Materials Inventory**		**Work-in-Process Inventory**		**Finished Goods Inventory**	
Beginning DM	$ 113,000 *	Beginning WIP Inventory	$ 229,000 *	Beginning FG Inventory	$ 154,000 *
+ Purchases of DM	476,000 *	+ Direct Materials Used	446,000 [e]	+ Cost of Goods Manufactured	1,186,000 [c]
		+ Direct Labor	505,000 *		
		+ Manufacturing Overhead	245,000 *		
= Direct Materials Available for Use	589,000	= Total Manufacturing Costs to Account For	1,425,000 *	= Cost of Goods Available for Sale	1,340,000 *
− Ending DM	143,000 [f]	− Ending WIP Inventory	239,000 [d]	− Ending FG Inventory	150,000 [b]
= Direct Materials Used	$ 446,000 [e]	= Cost of Goods Manufactured	$ 1,186,000 [c]	= Cost of Goods Sold	$ 1,190,000 [a]

* Denotes amounts given in the case.
**Direct materials portion only

Calculations for amounts denoted with a superscript letters are provided on the next two pages.

Decision Case 16-1, cont.

Calculations:

[a] Cost of Goods Sold:

Sales	×	(1 – Gross Profit %)	=	Cost of Goods Sold
$1,700,000	×	(1 – 30%)	=	$1,190,000
$1,700,000	×	70%	=	$1,190,000

[b] Ending Finished Goods Inventory:

Cost of Goods Available for Sale	–	Ending Finished Goods Inventory	=	Cost of Goods Sold
$1,340,000	–	Ending Finished Goods Inventory	=	$1,190,000
Therefore:		Ending Finished Goods Inventory	=	$150,000

[c] Cost of Goods Manufactured:

Beginning Finished Goods Inventory	+	Cost of Goods Manufactured	=	Cost of Goods Available for Sale
$154,000	+	Cost of Goods Manufactured	=	$1,340,000
Therefore:		Cost of Goods Manufactured	=	$1,186,000

[d] Ending Work-in-Process Inventory:

Total Manufacturing Costs to Account For	–	Ending Work-in-Process Inventory	=	Cost of Goods Manufactured
$1,425,000	–	Ending Work-in-Process Inventory	=	$1,186,000
Therefore:		Ending Work-in-Process Inventory	=	$ 239,000

Decision Case 16-1, cont.

[e] Direct Materials Used:

Beginning Work-in-Process Inventory	+	Direct Materials Used	+	Direct Labor	+	Manufacturing Overhead	=	Total Manufacturing Costs to Account For
$229,000	+	Direct Materials Used	+	$505,000	+	$245,000	=	$1,425,000
Therefore:		Direct Materials Used					=	$ 446,000

[f] Ending Direct Materials:

Direct Materials Available for Use	–	Ending Direct Materials	=	Direct Materials Used
$589,000	–	Ending Direct Materials	=	$446,000
Therefore:		Ending Direct Materials	=	$143,000

Requirement 2

Inventory lost in the flood:

Direct Materials	$143,000
Work-in-Process Inventory	239,000
Finished Goods Inventory	150,000
Total Inventory	$532,000

Ethical Issue 16-1

Students' responses will vary. Illustrative answers follow.

a. The ethical issue facing Becky is deciding what to do about the owner's gifts to the regional sales managers. Although small "courtesy" gifts are accepted practice in the world of sales, the regular basis and the high value of these items (especially jewelry) suggest that the owner is bribing the sales managers and other sales executives to receive a large allocation of cars.

b. The options include:
   (1) Do nothing,
   (2) Discuss the matter with the owner,
   (3) Resign if the owner will not stop the practice, or
   (4) Inform the manufacturer.

c. The possible consequences include:
   1. If Becky does nothing, her job and those of the other employees may remain secure for the time being. However, as controller she could be held accountable for laundering a bribe if the scheme became public. A lawsuit brought by other dealers who did not receive a fair share of available cars could name her as an involved party. If Becky is a CPA, she could also lose her CPA license.

      There are also potential tax consequences to consider. Since the jewelry expenditures are being recorded as selling expenses, it is likely that this amount is being deducted on the company's tax return. The IRS limits deductions of gifts to $25 per person per year. Since a Rolex watch far exceeds the cost of $25, Becky's failure to disclose the true nature of the expense may make her liable for underreporting the company's tax liability.

   2. If Becky discusses the matter with the owner, she might find out that there is another side to the story and in fact there is no wrongdoing or ethical dilemma. However, this seems unlikely given the facts. It also seems unlikely that the owner will end this practice since it enhances the dealership's profits. However, Becky may have some influence on Mueller if she explains the dangers of continuing the bribes. Mueller could be sued by other dealers, or the manufacturer could cancel his dealership. Such outcomes would affect all the dealership's employees, not just Mueller. If Mueller refuses to change his ways, then Becky is in an even more difficult position because she now has direct knowledge of the bribery.

Ethical Issue 16-1, cont.

3. By resigning, Becky loses her job but protects her integrity and avoids being involved in a subsequent action against the dealership if the bribery becomes known.

4. Perhaps an even more difficult question is whether Becky should inform the manufacturer about the bribery. If Becky has not already resigned, Mueller probably would fire her for taking this action.

d. Accountants should never become party to, or appear to be involved in, an unethical (and possibly illegal) situation such as this. This is especially true for persons with fiduciary responsibilities like a controller. Becky should discuss her concerns with the owner. If Mueller is indeed bribing the sales representatives and refuses to stop this practice, Becky should inform the manufacturer, or she should resign.

Communication Activity 16-1

In 100 words or fewer, explain the difference between product costs and period costs. In your explanation, explain the inventory accounts of a manufacturer.

SOLUTION

Period costs are operating costs that are expensed in the same accounting period in which they are incurred, whereas product costs are recorded as an asset and not expensed until the accounting period in which the product is sold. Period costs are all costs not considered product costs.

Manufacturing companies track costs on three kinds of inventory. Raw Materials Inventory includes materials used to manufacture a product. Work-in-Process Inventory includes goods that have been started in the manufacturing process but are not yet complete. Finished Goods Inventory includes completed goods that have not yet been sold.

Chapter 16

Introduction to Managerial Accounting

Chapter Overview

The chapter introduces students to managerial accounting as distinguished from financial accounting. Students learn about the information that managers—the decision makers inside the business—must know and use in order to effectively plan and control the business. The differences between financial and managerial accounting are delineated. The role of the manager as well as managerial accounting functions are emphasized. The chapter continues with a discussion of the professional ethical standards for management accountants: competence, confidentiality, integrity, and credibility.

Cost classification categories are explained, including direct/indirect costs, product/period costs, and types of manufacturing product costs (direct materials, direct labor, and manufacturing overhead), which can be alternatively categorized as prime costs (direct materials and direct labor) or conversion costs (direct labor and manufacturing overhead). Service companies, merchandising companies, and manufacturing companies are discussed, and a balance sheet and income statement examples are provided for each. The calculation of cost of goods manufactured is presented, and a schedule example is provided. Exhibits help students visualize the flow of costs through a manufacturing company's accounting system to the income statement. A discussion of today's business environment points out that recent trends include a shift toward a service economy, competing in the global marketplace, timed-based competition, advanced information systems, e-commerce, just-in-time management, the total quality movement, and integrated economic, social, and environmental reporting. The chapter concludes with a discussion on how to calculate cost per unit for a merchandising business and cost per service for a service business.

An Ethics feature provides an ethical dilemma that can be used for discussion purposes. A Tying It All Together feature provides a look into the balance sheet and income statement of Winnebago Industries, Inc. The Review section includes Things You Should Know which highlights the information students should have acquired from the chapter. A Check Your Understanding Problem reviews product/period cost categorization and calculation of cost of goods manufactured, cost of goods sold, and cost per unit. A list of Key Terms is provided. A Quick Check gives students a chance to assess their knowledge of the chapter learning objectives.

Chapter 16: Learning Objectives

LO 1. Define managerial accounting and understand how it is used

LO 2. Classify costs used in managerial accounting

LO 3. Prepare financial statements for a manufacturer, including a balance sheet, income statement, and schedule of cost of goods manufactured

LO 4. Describe business trends affecting managerial accounting

LO 5. Describe how managerial accounting is used in service and merchandising companies

Chapter 16: Teaching Outline with Lecture Notes

LO 1. Define managerial accounting and understand how it is used

- Exhibit 16-1: Financial Accounting Versus Managerial Accounting

a) Managers' role in the organization

- Exhibit 16-2: Organizational Chart for Smart Touch Learning (Partial)

b) Managerial accounting functions

- Exhibit 16-3: Pathways Vision Model

c) Ethical standards of managers

- Exhibit 16-4: IMA Statement of Ethical Professional Practice (Excerpt)

Lecture Notes: Students are not as familiar with managerial accounting as they are financial accounting. Emphasize the key difference: Managerial accounting is focused on internal users of financial information for decision making, while financial accounting is focused on external users for financial reporting. Managers throughout the organization rely on managerial accounting to help plan, direct, control, and make decisions about the business. The Pathways Vision Model provides a visual way for students to more clearly understand the role of managerial accounting in making good decisions.

The Institute of Management Accountants (IMA) has developed ethical standards requiring managerial accountants to maintain their professional competence, preserve the confidentiality of the information they handle, and act with integrity and credibility.

Suggested In-Class Exercise: E16-13

LO 2. Classify costs used in managerial accounting

a) Manufacturing companies

b) Direct and indirect costs

c) Manufacturing costs

- Exhibit 16-5: Manufacturing Costs

d) Prime and conversion costs

- Exhibit 16-6: Prime and Conversion Costs

e) Product and period costs

- Exhibit 16-7: Period Versus Product Costs

- Exhibit 16-8: Period and Product Costs for Smart Touch Learning

Lecture Notes: Point out the distinction between direct and indirect manufacturing costs. Direct costs are added to WIP, whereas indirect costs are usually collected in one or more Manufacturing Overhead accounts and then applied to WIP using a predetermined overhead rate. Therefore, when materials are used, you must know whether they are indirect or direct. When labor is incurred, you must know whether it is direct or indirect. The recording of labor in an asset account (WIP) may need additional explanation. Students might want to expense labor because it was expensed in previous chapters. Remind students that manufacturing companies add all product costs to inventory, and they are expensed (COGS) when inventory is sold.

Distinguish between product costs and period costs. GAAP requires that all manufacturing costs be treated as costs of making the product, which means these manufacturing costs (raw materials, manufacturing labor, and manufacturing overhead) are "attached" to the product. All nonmanufacturing costs go directly to the income statement in the period in which they occur. Consider an oversimplified company that has a factory in your local community and corporate offices in New York City (or some other major urban center). Everything that goes on at the factory in your local community is a manufacturing cost that becomes attached to the product by accumulating those costs in WIP. Everything that goes on in the corporate offices is a period cost that is charged directly to the income statement in the period in which it occurs. While this is an oversimplification (for example, sales offices or research labs can be located in a factory setting), it serves to fix the distinction in students' minds.

Overhead includes all manufacturing costs other than direct materials and direct labor. Therefore, students must know whether a cost is manufacturing or nonmanufacturing. For example, "depreciation" will no longer suffice. Is it manufacturing or nonmanufacturing? As discussed for labor above, students may want to expense all indirect costs, such as depreciation, insurance, etc., because they were expensed in previous chapters. Remind students that manufacturing companies add all product costs to inventory—first to WIP, which is transferred to FG, and then as COGS when inventory is sold.

Suggested In-Class Exercise: E16-15

LO 3. Prepare financial statements for a manufacturer, including a balance sheet, income statement, and schedule of cost of goods manufactured

a) Balance sheet

- Exhibit 16-9: Balance Sheet Comparison

b) Income statement

- Exhibit 16-10: Income Statement Comparison

c) Product costs flow through a manufacturing company

- Exhibit 16-11: Product Costs Flow Through a Manufacturing Company

d) Calculating cost of goods manufactured

i. Step 1: Calculate direct materials used.

ii. Step 2: Calculate total manufacturing costs incurred during the year.

iii. Step 3: Calculate cost of goods manufactured.

- Exhibit 16-12: Schedule of Costs of Goods Manufactured

e) Calculating cost of goods sold

- Exhibit 16-13: Income Statement—Manufacturing Company

f) Flow of costs through the inventory accounts

- Exhibit 16-14: Flow of Costs Through Smart Touch Learning's Inventory Accounts

g) Using the schedule of cost of goods manufactured to calculate unit product cost

Lecture Notes: Emphasize that management accounting concepts apply to all types of companies, not just manufacturing companies. Much attention is focused on manufacturing businesses because they are more complex and less familiar. Nonetheless, the product costing concepts discussed in relation to manufacturing can be applied to service costing and activity costing in the other types of companies.

Students will probably be able to relate to service companies and merchandising companies (such as auto repair shops and grocery stores) more easily than they can relate to manufacturing companies. Service companies and merchandising companies have already been discussed in the textbook. It may be helpful to ask students to provide examples of each type of company, especially merchandising and manufacturing, to assess their knowledge of the differences. Ask if anyone has toured a factory when it is operating.

When introducing inventory accounts, remind students how the Merchandise Inventory account works. Merchandise is purchased (increase Merchandise Inventory with a debit). Then when the inventory is sold, take it out of Merchandise Inventory and off the balance sheet (decrease Merchandise Inventory with a credit) and charge it to the income statement as the expense Cost of Goods Sold (increase the expense with a debit). If more merchandise is purchased than sold, the difference remains in Merchandise Inventory as the ending balance and is reported as an asset on the balance sheet. It then becomes next period's beginning inventory. Emphasize the basic generic inventory relationship:

Beginning + Additions – Ending balance = Amount used, manufactured, or sold

Manufacturers have three inventory accounts: Raw Materials Inventory (RM), Work-in-Process Inventory (WIP), and Finished Goods Inventory (FG). All three are assets on the balance sheet. Inventory is removed from FG and from the balance sheet when sold and then charged to the income statement as the expense Cost of Goods Sold (COGS). The WIP account is an accumulation account that collects product costs as they are added in the production process—direct materials, direct labor, and manufacturing overhead. Explain that WIP represents the product as it is being assembled on the factory floor. After the product comes off the production line and is boxed up and moved to the finished product warehouse, the related dollars are taken out of the WIP account and moved to the FG account.

Demonstrate that inventory accounts all function in the same way as the generic inventory account previously discussed:

Beginning balance + Additions – Ending balance = Amount used, manufactured, or sold

Point out that the increases in WIP represent the accumulation of direct materials, direct labor, and manufacturing overhead costs that become attached to the product being assembled.

Suggested In-Class Exercises: E16-16, E16-17, and E16-18

LO 4. Describe business trends affecting managerial accounting

a) Shift toward a service economy

b) Global competition

c) Time-based competition

d) Total quality management

- Exhibit 16-15: Value Chain

e) The triple bottom line

Suggested In-Class Exercise: E16-22

LO 5. Describe how managerial accounting is used in service and merchandising companies

a) Calculating cost per service

b) Calculating cost per item

Suggested In-Class Exercise: E16-23, E16-24

Chapter 16: Handout for Student Notes

LO 1. Why is managerial accounting important?

- Manager's role in the organization
- Managerial accounting functions
- Ethical standards of managers

LO 2. How are costs classified?

  - Manufacturing companies
  - Direct and indirect costs
  - Manufacturing costs
  - Prime and conversion costs
  - Product and period costs

LO 3. How do manufacturing companies prepare financial statements?

  - Balance sheet
  - Income statement

- Product costs flow through a manufacturing company
- Calculating cost of goods manufactured
- Calculating cost of goods sold
- Flow of costs through the inventory accounts
- Using the schedule of costs of goods manufactured to calculate unit product cost

LO 4. What are business trends that are affecting managerial accounting?

- Shift toward a service economy
- Global competition
- Time-based competition
- Total quality management
- The triple bottom line

LO 5. How is managerial accounting used in service and merchandising companies?

- Calculating cost per service

- Calculating cost per item

Chapter 16: Student Chapter Summary

LO 1. Define managerial accounting and understand how it is used

Financial accounting prepares reports for external users, such as investors, creditors, and government agencies. Managerial accounting provides information for managers to use in decision making. Managers are accountable to many different stakeholders. Today's business environment requires managers to use many tools to be successful. The IMA Standards of Ethical Professional Practice include competence, confidentiality, integrity, and credibility.

LO 2. Classify costs used in managerial accounting

Product costs are all costs incurred in the manufacture of final products. The three categories of product costs are direct materials, direct labor, and manufacturing overhead. Product costs are first recorded as inventory and are not expensed until the product is sold. Period costs are all costs not considered product costs. Period costs are expensed in the accounting period incurred. Direct costs can be easily traced directly to a cost object, whereas indirect costs cannot. Prime costs are direct materials and direct labor. Conversion costs are direct labor and manufacturing overhead.

LO 3. Prepare financial statements for a manufacturer, including a balance sheet, income statement, and schedule of cost of goods manufactured

Manufacturers have three inventory accounts: Raw Materials Inventory (RM), Work-in-Process Inventory (WIP), and Finished Goods Inventory (FG). All three are assets on the balance sheet. Inventory costs are removed from FG and from the balance sheet when the product is sold and then charged to the income statement as the expense Cost of Goods Sold (COGS). The WIP account is an accumulation account that collects product costs as they are added in the production process—direct materials, direct labor, and manufacturing overhead. WIP represents the cost of the product as it is being assembled on the factory floor. After the product comes off the production line and is boxed up and moved to the finished product warehouse, the related dollars are taken out of the WIP account and moved to the FG account.

Calculating cost of goods manufactured and cost of goods sold requires knowledge of how product costs flow through a manufacturing company. Cost of goods manufactured is calculated in three steps:

Step 1: Calculate direct materials used.

Step 2: Calculate total manufacturing costs incurred during the year.

Step 3: Calculate cost of goods manufactured.

Cost of goods sold represents the cost of the Finished Goods Inventory that has been sold. All inventory accounts function in the same way:

Beginning balance + Additions – Ending balance = Amount used, manufactured, or sold

LO 4. Describe business trends affecting managerial accounting

The shift toward a service economy, global competition, time-based competition, Total Quality Management (TQM), and the triple bottom line are business trends affecting managerial accounting today. Managers in the service industry need to understand the cost of providing services, supporting customers, and planning for future customer and service needs. Companies are moving operations to other countries to be closer to new markets or partnering with foreign companies to meet local needs. Companies have also developed the time-saving responses to keep up with the pace of business in the instant messaging age, such as advanced information systems, e-commerce, and just-in-time management. TQM is a philosophy of continuous improvement of products and processes leading to fewer defects and higher customer satisfaction. Companies are also recognizing that they have multiple responsibilities—economic, social, and environmental—and that generating profits for owners and investors is only one aspect of being a socially responsible organization.

LO 5. Describe how managerial accounting is used in service and merchandising companies

Managerial accounting isn't just for manufacturing companies. Service companies and merchandising companies also use managerial accounting.

- Unit cost per service = Total costs / Total number of services provided
- Unit cost per item = Total cost of goods sold / Total number of items sold

Chapter 16: Assignment Grid and Other Materials

	LO 1	LO 2	LO 3	LO 4	LO 5
S16-1	X				
S16-2	X				
S16-3		X			
S16-4		X			
S16-5		X			
S16-6			X		
S16-7			X		
S16-8			X		
S16-9			X		
S16-10			X		
S16-11				X	
S16-12					X
E16-13	X				
E16-14	X				
E16-15		X			
E16-16			X		
E16-17			X		
E16-18			X		
E16-19			X		
E16-20			X		
E16-21			X		
E16-22				X	
E16-23			X		X
E16-24			X		X
P16-25A, P16-33B	X				
P16-26A, P16-34B		X			
P16-27A, P16-35B			X		
P16-28A, P16-36B			X		
P16-29A, P16-37B			X		
P16-30A, P16-38B			X		
P16-31A, P16-39B			X		X
P16-32A, P16-40B			X		X

S – Short Exercises (*Easy*)
E – Exercises (*Moderate*)
P – Problems (*Difficult*)

Other End-of-Chapter Materials:

Using Excel P16-41
Continuing Problem P16-42
Tying It All Together Case 16-1
Decision Case 16-1
Ethical Issue 16-1
Communication Activity 16-1

CHAPTER 16
TEN-MINUTE QUIZ

Circle the letter of the best response.

1. Which is *not* a characteristic of managerial accounting information?
   A. Provides information that is useful to internal decision makers
   B. Provides detailed information about individual parts of the company
   C. Not required to follow GAAP
   D. Focuses on past results

2. Which of the following is a software system used to integrate company functions, departments, and data?
   A. Total Quality Management
   B. Enterprise Value Chain
   C. Enterprise Resource Planning
   D. Just-in-Time Management

3. Which of the following characteristics of today's business environment is most closely associated with the philosophy of continuous improvement?
   A. Global competition
   B. Total Quality Management
   C. Time-based competition
   D. E-commerce

4. Which of the following accounts is used by a manufacturing company but not by a service company?
   A. Cost of Goods Sold
   B. Salaries Payable
   C. Supplies Expense
   D. Retained Earnings

5. Goods available for sale that are *not* part of Cost of Goods Sold are included in
   A. Work-in-Process Inventory beginning balance.
   B. Work-in-Process Inventory ending balance.
   C. Finished Goods Inventory beginning balance.
   D. Finished Goods Inventory ending balance.

6. Which of the following is a direct cost of manufacturing a sport boat?
   A. Salary of the engineer who rearranges the boat factory layout
   B. Depreciation on equipment used to manufacture the boat
   C. Cost of a boat engine
   D. Cost of a boat customer hotline

7. Which of the following is *not* a product cost?
   A. Advertising expense
   B. Plant manager's salary
   C. Insurance on plant and equipment
   D. Depreciation on quality control equipment

Questions 8 and 9 use the data in the following table, which has been provided by a bakery:

Beginning Direct Materials	$ 6,000
Ending Direct Materials	9,000
Beginning Work-in-Process Inventory	12,000
Ending Work-in-Process Inventory	17,000
Beginning Finished Goods Inventory	3,000
Ending Finished Goods Inventory	5,000
Manufacturing Overhead	21,000
Direct labor	30,000
Direct materials used in production	95,000

8. What is cost of direct materials purchased?
   A. $ 3,000
   B. $ 92,000
   C. $ 98,000
   D. $110,000

9. What is the cost of goods manufactured?
   A. $125,000
   B. $141,000
   C. $146,000
   D. $151,000

10. A management accountant who communicates information fairly and objectively is practicing the ethical standard of
   A. integrity.
   B. confidentiality.
   C. competence.
   D. credibility.

Answer Key to Ten-Minute Quiz:

1. D

2. C

3. B

4. A

5. D

6. C

7. A

8. C

Beginning Direct Materials	$ 6,000
Purchases of Direct Materials	98,000
Direct Materials Available for Use	104,000
Ending Direct Materials	(9,000)
Direct Materials Used	$ 95,000

Direct Materials Available for Use = Direct Materials Used + Ending Direct Materials
= $95,000 + $9,000 = $104,000
Purchases of Direct Materials = Direct Materials Available for Use – Beginning Direct Materials
= $104,000 − $6,000 = $98,000

9. B

Beginning Work-in-Process Inventory		$ 12,000
Direct Materials Used	$ 95,000	
Direct Labor	30,000	
Manufacturing Overhead	21,000	
Total Manufacturing Costs Incurred during the Period		146,000
Total Manufacturing Costs to Account For		158,000
Ending Work-in-Process Inventory		-17,000
Cost of Goods Manufactured		$ 141,000

10. D

Extra Critical Thinking Questions

Decision Case 16-2
The IMA's Statement of Ethical Professional Practice can be applied to more than just managerial accounting. It is also relevant to college students.

Explain at least one situation that shows how each IMA standard in Exhibit 16-4 is relevant to your experiences as a student. For example, the ethical standard of competence would suggest not cutting classes!

Decision Case 16-2: Solution

Students' responses will vary. Illustrative answers follow:

- *Competence*. Students have a responsibility to build their professional competence by attending classes, conscientiously completing homework, and studying for exams.
- *Confidentiality*. When friends or family members share intimate information or highly personal information, you should respect the trust they have placed in you and keep that information confidential, as is appropriate for the situation.
- *Integrity*. Students have a responsibility to act with integrity and not to cheat. Students also should help ensure the integrity of the process. For example, students should inform the instructor if they suspect other students have a copy of an upcoming exam.
- *Credibility*. Be honest and straightforward when communicating with others. Do not lie or deliberately mislead others.

Fraud Case 16-1

Juan Gomez was the fastest-rising star of a small CPA firm in West Palm Beach, Florida. Most of his clients traveled in stratospheric circles of wealth, and Juan knew that fitting in with this crowd was essential to his career. Although he made good money, it wasn't enough to live that kind of lifestyle. Meanwhile, Juan had become friends with one of his clients, Tony Russo. Knowing Russo's books inside and out and being on close terms with him, Juan asked Tony for a personal loan. Juan was sure he'd be able to pay it back when he got his next bonus, but things stretched out, and additional loans were made. Two years later, Tony's company hit some losses, and the numbers were looking grim. Tony reminded Juan that it would not look good for his career if his CPA firm knew Juan had borrowed from a client, and so Juan changed a few numbers and signed off on clean financials for Tony's firm. This went on for three years, until one morning when Juan got a call. Russo had died; his sons had gone through the books, and the whole scheme came out. Juan did some prison time and lost his license, but he was repentant and made an instructional video for accounting students to warn them of the temptations they may encounter in the real world of business.

Requirements

1. Although the central character of this story worked in public accounting, please refer to the IMA Statement of Ethical Professional Practice in Exhibit 16-4 and discuss which of those issues are reflected in this case.
2. Could Juan have removed himself from his situation? How?

Fraud Case 16-1: Solution

Students' responses will vary. Illustrative answers follow.

Requirement 1

This case reflects a clear conflict of interest in that Juan Gomez, as a public accountant, was supposed to be independent of his client but was, in fact, financially involved. This is a clear violation of *integrity*. It also involves the issue of *credibility*, in that Juan "cooked the books" for his client and thus sanctioned the publication of false financial information.

Requirement 2

Juan would first have to pay back the loan he took from his client. Then he would have to remove himself from the engagement with this client, admit his actions, and possibly resign from his firm because the falsified financial information would become apparent to whomever followed Juan on the engagement. These actions might, or might not, shield Juan from criminal or civil prosecution. The bottom line is that once Juan took the money, his career was in irreversible jeopardy.

Team Project 16-1

Search the Internet for a nearby company that has a Web site. Arrange an interview for your team with a managerial accountant, a controller, or another accounting/finance officer of the company.

Requirements

Before your team conducts the interview, answer the following questions:

1. Is this a service, merchandising, or manufacturing company? What is its primary product or service?
2. Is the primary purpose of the company's Web site to provide information about the company and its products, to sell online, or to provide financial information for investors?
3. Are parts of the company's Web site restricted so that you need password authorization to enter? What appears to be the purpose of limiting access?
4. Does the Web site provide an e-mail link for contacting the company?

At the interview, begin by clarifying your team's answers to Questions 1 through 4 and ask the following additional questions:

5. If the company sells over the Internet, what benefits has the company derived? Did the company perform a cost/benefit analysis before deciding to begin Web sales?
   Or
   If the company does not sell over the Internet, why not? Has the company performed a cost/benefit analysis and decided not to sell over the Web?
6. What is the biggest cost of operating the Web site?
7. Does the company make any purchases over the Internet? What percentage?
8. How has e-commerce affected the company's managerial accounting system? Have the managerial accountant's responsibilities become more or less complex? More or less interesting?
9. Does the company use Web-based accounting applications, such as accounts receivable or accounts payable?
10. Does the company use an ERP system? If so, do managers view the system as a success? What have been the benefits? The costs?

Your team should summarize your findings in a short paper. Provide any exhibits that enhance your explanation of key items. Provide proper references and a works cited page.

Team Project 16-1: Solution

Students' responses will vary. However, following are some observations.

The person interviewed could be identified through a connection of one of the students, a connection made by the instructor, or a connection through the school.

Requiring students to answer the first four questions before the interview will help ensure that they are prepared for the interview. It is important that students be prepared so they can make a favorable impression on the interviewee (for the school and future employment!) and so they do not waste the interviewee's time. If the company is of any reasonable size, students should be able to gather information from the library or the Internet.

While it would be unusual for a company not to have a Web site, the role of its Web site in the company's business plan can vary significantly. The site may simply provide information about the company and/or its products and, for a manufacturer, a dealer locator. Other Web sites are designed to sell products. Certain Web pages may be designed for sales to the general public, while other parts of the site may require a password and offer sales to specific customers on prearranged terms. The Web site might not give a full indication of the extent to which a company relies on the Internet. For example, a company may rely on the Internet for purchasing, budgeting, or communicating within the firm.

Increasing dependence on the Internet has implications for management accounting. A full-featured Web site may cost millions of dollars, so the CFO will likely be involved in the investment decision and in monitoring and evaluating the success of this investment. Management accountants will collect and analyze new types of data, such as the number of unique customers at the company's Web site and the length of time each customer spends at the site.

Accounting applications also may follow the underlying transactions to the Web. For example, when a company moves business-to-business sales to the Web, it also may adopt Internet-based receivables management software to reduce billing costs and speed up collection. The company also may install an ERP system to further integrate and speed up its transaction processing.

Chapter 16

Introduction to Managerial Accounting

Directed Reading Guide

LO1. Why is managerial accounting important?

a) Identify as a focus of Managerial (M) or Financial (F) accounting:

i) Primarily for internal users ______

ii) Primarily for external users ______

iii) Follows GAAP rules ______

iv) Summary reports of the entire company ______

v) Concerned about how reports will affect employee behavior ______

b) Managers need information for?

i)

ii)

iii)

iv)

v)

In MyAccountingLab, complete Try It! 16-1 and S16-1 and S16-2.

LO2. How are costs classified?

a) Manufacturing (product) costs categories are:

i)

ii)

iii)

b) ________________ combines direct materials and direct labor.

c) ________________ combines direct labor and manufacturing overhead.

d) Selling and administrative expenses are referred to as ________________.

In MyAccountingLab, complete Try It! 16-2 and S16-3 through S16-5.

LO3. How do manufacturing companies prepare financial statement?

a) Identify if the item is part of the Cost of Goods Manufactured (COGM) or the Cost of Goods Sold (COGS):

i) Beginning Finished Goods Inventory __________

ii) Direct Materials Used __________

iii) Direct Labor __________

iv) Beginning Work-in-Process Inventory __________

b) If beginning Finished Good Inventory is $2,000, ending Finished Goods Inventory is $3,000, and Cost of Goods Manufactured is $10,000, what is Cost of Gods Sold?

In MyAccountingLab, complete Try It! 16-3 and S16-6 through S16-10.

LO4. What are business trends that are affecting managerial accounting?

a) Which business trend to you think is affecting managerial accounting the most in today's business's and why?

b) Pick an activity in the value chain and describe how it can add value to a product (you may pick a product to use as part of your example).

In MyAccountingLab, complete Try It! 16-11.

LO5. How is managerial accounting used in service and merchandising companies?

a) ABC Company has incurred costs of $4,000 and provided service to 1,000 customers, what is the cost per service?

b) ABC Company sold 300 bottles of water that costs $150 to purchase, what is the cost per water bottle?

In MyAccountingLab, complete Try It! 16-12.

Appendix B
Accounting Information Systems

Review Questions

1. An accounting information system (AIS) is a system that collects, records, stores, and processes accounting data to produce information that is useful for decision makers.

2. An effective accounting information system provides control, compatibility, flexibility, relevance, and a positive cost/benefit relationship.

3. The three basic components of an accounting information system are source documents and input devices, processing and storage, and outputs.

Source documents provide the evidence for accounting transactions. In a computerized system, the data is transferred into the AIS by keyboard and computer or computerized scanning equipment.

In a manual system, processing of data includes journalizing transactions and posting to the accounts. Computerized systems use software to process transactions. Data is stored in filing cabinets or offsite document warehouses in a manual system. Computerized systems store data on a server.

The outputs are the reports used for decision making, including financial statements.

4. A special journal is an accounting journal designed to record a specific type of transaction.

5. A subsidiary ledger holds individual accounts that support a general ledger account. The sum of the balances of the accounts in the subsidiary ledger equals the balance in the control account. Common examples include Accounts Receivable and Accounts Payable. The subsidiary ledger provides details about a general ledger account. For example, the accounts receivable subsidiary ledger provides details about the accounts receivable for each customer as far as amount paid, amount unpaid, amount purchased on credit, and so on.

6. A control account is a general ledger account whose balance equals the sum of the balances in a group of related accounts in a subsidiary ledger.

7. The four special journals often used in a manual accounting information system are:
- Sales journal—used to record sales on account
- Cash receipts journal—used to record cash receipts
- Purchases journal—used to record purchases of inventory and other assets on account
- Cash payments journal—used to record cash payments

8. Entries in the sales journal are posted to both the accounts receivable subsidiary ledger and the general ledger. Individual accounts receivable are posted daily from the sales journal to the accounts receivable subsidiary ledger. At the end of the month, the totals of the columns are posted to the appropriate accounts in the general ledger: Accounts Receivable, Sales Revenue, Cost of Goods Sold, and Merchandise Inventory.

9. The Other Accounts CR column of the cash receipts journal is used to record miscellaneous cash receipt transactions, such as the receipt of cash in exchange for a note payable or the receipt of cash for interest revenue.

10. The purchases journal typically has special columns for Account Payable CR, Merchandise Inventory DR, Office Supplies DR, and Other Accounts DR. The journal also has columns for the date, vendor account credited, terms of purchase, and posting reference.

11. Entries in the cash payments journal are posted to both the accounts payable subsidiary ledger and the general ledger. Individual accounts payable are posted daily from the cash payments journal to the accounts payable subsidiary ledger. At month end, the totals of the columns (except for the Other Accounts DR column) are posted to the appropriate account in the general ledger. Amounts in the Other Accounts DR column are posted individually.

12. Nonroutine transactions are recorded in the general journal. Examples include sales returns and allowances, purchase returns and allowances, adjusting entries, and closing entries.

13. The two components of a computerized accounting information system are hardware and software. Hardware is the electronic equipment: computers, monitors, printers, and the network that connects them. Software is the set of programs that drives the computer. Accounting software reads, edits, and stores transaction data.

14. The two common entry-level accounting software systems used by small businesses are QuickBooks™ and Sage 50™ Accounting.

15. An enterprise resource planning (ERP) system integrates all of a company's functions, departments, and data into a single system. Advantages include reducing costs, helping companies adjust to changes, and replacing separate software systems, such as sales and payroll. Disadvantages include expensive installation costs and a large commitment of time and people.

16. QuickBooks is organized by function or task. A navigation panel on the left-hand side of the screen is used to select a variety of tasks such as vendors, customers, employees, transactions, and reports.

17. To record a sale of services on account in QuickBooks, the transaction is recorded on the customers tab. Transaction data, such as customer name, date, and amount, is entered and the system posts the transaction to the appropriate general ledger accounts.

18. To record a bill received in QuickBooks, use the vendors tab. Data is entered and QuickBooks posts the transaction to the appropriate general ledger accounts.

Short Exercises

SB–1

An effective accounting information system includes control, compatibility, flexibility, relevance, and a positive cost/benefit relationship. All of these features are important, but because In Vogue is growing fast, flexibility is especially important to this company. Flexibility in the system will allow In Vogue to accommodate changes as it grows. Control and relevance are also extremely important. In Vogue must have a system that has internal controls to help safeguard the company’s assets, and the company needs relevant data to improve decision making.

If financial resources are limited, the feature that must be considered is the cost/benefit relationship. In Vogue should purchase the system that will provide the most benefits in relation to the amount invested in the system.

SB–2

Example	**Component**
1. Server	b. Processing and Storage
2. Bank checks	a. Source Documents and Input Devices
3. Reports	c. Outputs
4. Keyboard	a. Source Documents and Input Devices
5. Software	b. Processing and Storage
6. Financial statements	c. Outputs
7. Bar code scanner	a. Source Documents and Input Devices

SB–3

a. CP
b. CR
c. CP
d. CR
e. P
f. S
g. CR
h. CP
i. J
j. P
k. CR
l. J
m. S
n. CP

SB–4

Note: This journal shows totals and posting references that are required in Short Exercise SB–5.

Sales Journal					**Page 1**
				Accounts Receivable DR	**Cost of Goods Sold DR**
Date	**Invoice No.**	**Customer Account Debited**	**Post. Ref.**	**Sales Revenue CR**	**Merchandise Inventory CR**
2018					
Jun. 1	101	Fran Jack	✓	1,220	980
8	102	Ireland Frank	✓	2,025	1,640
13	103	Jake Thompson	✓	420	210
28	104	Gabe West	✓	820	620
30		Totals		4,485	3,450
				(112/411)	(511/118)

SB–5
Requirement 1

See sales journal in Short Exercise SB–4.

SB-5, cont.
Requirement 2

Accounts Receivable—Frank					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Jun. 8	S.1	2,025		2,025	

Accounts Receivable—Jack					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Jun. 1	S.1	1,220		1,220	

Accounts Receivable—Thompson					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Jun. 13	S.1	420		420	

Accounts Receivable—West					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Jun. 28	S.1	820		820	

SB-5, cont.
Requirement 3

Accounts Receivable					No. 112
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Jun. 30	S.1	4,485		4,485	

Merchandise Inventory					No. 118
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				5,000	
Jun. 30	S.1		3,450	1,550	

Sales Revenue					No. 411
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Jun. 30	S.1		4,485		4,485

Cost of Goods Sold					No. 511
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Jun. 30	S.1	3,450		3,450	

Requirement 4

Customer	Balance
Frank	$ 2,025
Jack	1,220
Thompson	420
West	820
Total	$ 4,485

The total of the customer balances in the accounts receivable subsidiary ledger agrees with the balance in Accounts Receivable in the general ledger: $4,485.

SB–6
Requirement 1
Note: This journal shows totals and posting references that are required in Short Exercise SB–7.

Cash Receipts Journal								Page 3
Date	Account Credited	Post. Ref.	Cash DR	Accounts Receivable CR	Sales Revenue CR	Sales Discounts Forfeited CR	Other Accounts CR	Cost of Goods Sold DR / Merchandise Inventory CR
2018								
Jul. 5			1,700		1,700			1,400
12	Interest Revenue	419	2,050				2,050	
18	Heidi Next	✓	1,200	1,200				
29	Mitch Dylan	✓	5,300	5,280		20		
31	Totals		10,250	6,480	1,700	20	2,050	1,400
			(111)	(112)	(411)	(412)	(X)	(511/118)

SB–7

Requirement 1

See cash receipts journal in Short Exercise SB-6.

Requirement 2

Accounts Receivable—Dylan					
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.				5,280	
Jul. 29	CR.3		5,280	0	

Accounts Receivable—Next					
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.				2,250	
Jul. 18	CR.3		1,200	1,050	

Requirement 3

Cash					**No. 111**
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.				4,550	
Jul. 31	CR.3	10,250		14,800	

Accounts Receivable					**No. 112**
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.				7,530	
Jul. 31	CR.3		6,480	1,050	

Merchandise Inventory					**No. 118**
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.				3,250	
Jul. 31	CR.3		1,400	1,850	

SB–7, cont.
Requirement 3, cont.

Sales Revenue					No. 411
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					25,000
Jul. 31	CR.3		1,700		26,700

Sales Discounts Forfeited					No. 412
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Jul. 31	CR.3		20		20

Interest Revenue					No. 419
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Jul. 12	CR.3		2,050		2,050

Cost of Goods Sold					No. 511
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				14,500	
Jul. 31	CR.3	1,400		15,900	

Requirement 4

Customer	Balance
Dylan	$ 0
Next	1,050
Total	$ 1,050

The total of the customer balances in the accounts receivable subsidiary ledger agrees with the balance in Accounts Receivable in the general ledger: $1,050.

SB–8

Note: This journal shows totals and posting references that are required in Short Exercise SB–9.

Purchases Journal									**Page 6**
							Other Accounts DR		
Date	**Vendor Account Credited**	**Terms**	**Post. Ref.**	**Accounts Payable CR**	**Merchandise Inventory DR**	**Office Supplies DR**	**Account Title**	**Post. Ref.**	**Amount**
2018									
Oct. 1	Mayer Co.	4/10, n/30	✓	2,200	2,200				
11	Bird Co.	n/EOM	✓	600		600			
24	Silly Co.	3/10, n/60	✓	900			Furniture	151	900
31	Totals			3,700	2,200	600			900
				(211)	(115)	(116)			(X)

SB–9
Requirement 1
See purchases journal in Short Exercise SB–8.

Requirement 2

Accounts Payable—Bird Co.					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Oct. 11	P.6		600		600

Accounts Payable—Mayer Co.					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Oct. 1	P.6		2,200		2,200

Accounts Payable—Silly Co.					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Oct. 24	P.6		900		900

Requirement 3

Merchandise Inventory					No. 115
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Oct. 31	P.6	2,200		2,200	

Office Supplies					No. 116
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Oct. 31	P.6	600		600	

Furniture					No. 151
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Oct.24	P.6	900		900	

SB–9, cont.
Requirement 3, cont.

Accounts Payable					No. 211
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Oct. 31	P.6		3,700		3,700

Requirement 4

Vendor	Balance
Bird	$ 600
Mayer	2,200
Silly	900
Total	$ 3,700

The total of the vendor balances in the accounts payable subsidiary ledger agrees with the balance in Accounts Payable in the general ledger: $3,700.

SB–10
Note: This journal shows totals and posting references that are required in Short Exercise SB–11.

Cash Payments Journal							Page 8
Date	Ck. No.	Account Debited	Post. Ref.	Other Accounts DR	Accounts Payable DR	Merchandise Inventory CR	Cash CR
2018							
Jan. 5	430	Equipment	150	1,700			1,700
7	431	Merchandise Inventory	118	450			450
18	432	Kat Co.	✓		775	100	675
28	433	Utilities Expense	541	260			260
31		Totals		2,410	775	100	3,085
				(X)	(211)	(118)	(111)

SB–11

Requirement 1

See cash payments journal in Short Exercise SB–10.

Requirement 2

Accounts Payable—Kat Co.					
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.					1,900
Jan. 18	CP.8	775			1,125

Requirement 3

Cash					**No. 111**
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.				5,000	
Jan. 31	CP.8		3,085	1,915	

Merchandise Inventory					**No. 118**
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.				2,100	
Jan. 7	CP.8	450		2,550	
Jan. 31	CP.8		100	2,450	

Equipment					**No. 150**
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.				9,900	
Jan.5	CP.8	1,700		11,600	

Accounts Payable					**No. 211**
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.					1,900
Jan. 31	CP.8	775			1,125

SB–11, cont.
Requirement 3, cont.

Utilities Expense					No. 541
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Jan. 28	CP.8	260		260	

Requirement 4

Vendor	Balance
Kat Co.	$ 1,125
Total	$ 1,125

The total of the vendor balances in the accounts payable subsidiary ledger agrees with the balance in Accounts Payable in the general ledger: $1,125.

SB–12

Date	Accounts and Explanation	Debit	Credit
Mar. 6	Refunds Payable	1,000	
	Accounts Receivable—B. Kelp		1,000
	Merchandise Inventory	680	
	Estimated Returns Inventory		680
	Issued credit memo for sales return.		
28	Accounts Payable—Pond Company	600	
	Merchandise Inventory		600
	Issued debit memo for purchase return.		

Date	Transaction	Special Journal
Mar. 2	Sold merchandise inventory on account	Sales journal
21	Purchased merchandise inventory on account	Purchases journal

SB–13
Requirement 1
The two basic components of a computerized accounting information system are hardware and software.

Requirement 2
Examples of hardware: computers, monitors, printers, and the network that connects them.
Examples of software: programs that read, edit, process and store transaction data.

Requirement 3
Popular entry–level systems include QuickBooks and Sage 50 Accounting.

Exercises

EB–14
Requirements 1 and 2

Sales Journal					**Page 1**
				Accounts Receivable DR	**Cost of Goods Sold DR**
Date	**Invoice No.**	**Customer Account Debited**	**Post. Ref.**	**Sales Revenue CR**	**Merchandise Inventory CR**
Feb. 1	401	Cole Co.		1,050	860
20	402	Dump Co.		500	325
28		Totals		1,550	1,185

EB–15
Requirements 1 and 2

	Cash Receipts Journal							Page 1
Date	**Account Credited**	**Post. Ref.**	**Cash DR**	**Accounts Receivable CR**	**Sales Revenue CR**	**Sales Discounts Forfeited CR**	**Other Accounts CR**	**Cost of Goods Sold DR / Merchandise Inventory CR**
Feb. 6			950		950			750
12	Interest Revenue		170				170	
15	Cole Co.		1,050	1,050				
22			600		600			530
26	Office Supplies		150				150	
28	Dump Co.		500	500				
28	Totals		3,420	1,550	1,550		320	1,280

EB–16

Cash Receipts Journal								**Page 5**
								Cost of Goods Sold DR
Date	**Account Credited**	**Post. Ref.**	**Cash DR**	**Accounts Receivable CR**	**Sales Revenue CR**	**Sales Discounts Forfeited CR**	**Other Accounts CR**	**Merchandise Inventory CR**
2018								
May 16	L. Ebert	✓	**110**	**110**				
19	E. Loop	✓	**95**	**95**				
24			320		320			250
30	T. Ross	✓	**65**	**65**				
31	Totals		**590**	**270**	**320**			**250**

Debits: Cash + Cost of Goods Sold
$590 + $250 = **$840**

Credits: Accounts Receivable + Sales Revenue + Sales Discounts Forfeited + Other Accounts
+ Merchandise Inventory
$270 + $320 + $0 + $0 + $250 = **$840**

EB–17

a.	110
b.	512
c.	115
d.	510
e.	X
f.	611/118
g.	✓
h.	✓
i.	125
j.	520
k.	✓

EB–18

Date	Description
Nov. 9	From the sales journal, Leger Old Company recorded a sale on account to Josh Willow
18	From the general journal, Leger Old Company issued a credit memo to Josh Willow. Josh Willow returned some goods or received an adjustment on goods purchased.
30	From the cash receipts journal, Leger Old Company received a cash payment from Josh Willow

EB–19

Requirements 1 and 2

Purchases Journal									**Page 1**
							Other Accounts DR		
Date	**Vendor Account Credited**	**Terms**	**Post. Ref.**	**Accounts Payable CR**	**Merchandise Inventory DR**	**Office Supplies DR**	**Account Title**	**Post. Ref.**	**Amount**
Apr. 2	Vanderbilt Co.	3/10, n/60		2,400	2,400				
19	Downing Supplies	n/EOM		500		500			
24	Wilmington Sales	n/30		1,900	1,900				
30	Totals			4,800	4,300	500			

EB–20

Requirement 1 and 2

Cash Payments Journal							**Page 1**
Date	**Ck. No.**	**Account Debited**	**Post. Ref.**	**Other Accounts DR**	**Accounts Payable DR**	**Merchandise Inventory CR**	**Cash CR**
Apr. 5	820	Equipment		3,600			3,600
11	821	Merchandise Inventory		750			750
12	822	Vanderbilt Co.*			2,400	72	2,328
28	823	Prepaid Insurance		1,000			1,000
29	824	Rent Expense		1,250			1,250
30		Totals		6,600	2,400	72	8,928

*$2,400 × 3% = $72; $2,400 – $72 = $2,328

EB–21
Requirements 1, 2, and 3

Purchases Journal									Page 7
							Other Accounts DR		
Date	Vendor Account Credited	Terms	Post. Ref.	Accounts Payable CR	Merchandise Inventory DR	Office Supplies DR	Account Title	Post. Ref.	Amount
2018									
Sep. 2	Leap Tech	n/30	✓	830	830				
5	Jell Supply	n/30	✓	155		155			
13	Leap Tech	5/10, n/30	✓	1,470	1,470				
26	Fallon Equipment	n/30	✓	880			Equipment	150	880
30	Totals			3,335	2,300	155			880
				(211)	(118)	(120)			(X)

Merchandise Inventory					No. 118
				Balance	
Date	Post. Ref.	Debit	Credit	Debit	Credit
Sep. 30	P.7	2,300		2,300	

Office Supplies					No. 120
				Balance	
Date	Post. Ref.	Debit	Credit	Debit	Credit
Sep. 30	P.7	155		155	

EB–21, cont.
Requirements 1, 2, and 3, cont.

Equipment					No. 150
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Sep. 26	P.7	880		880	

Accounts Payable					No. 211
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Sep. 30	P.7		3,335		3,335

Accounts Payable—Fallon Equipment					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Sep. 26	P.7		880		880

Accounts Payable—Jell Supply					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Sep. 5	P.7		155		155

EB–21, cont.
Requirements 1, 2, and 3, cont.

Accounts Payable—Leap Tech					
				Balance	
Date	Post. Ref.	Debit	Credit	Debit	Credit
Sep. 2	P.7		830		830
13	P.7		1,470		2,300

Requirement 4

Vendor	Balance
Fallon Equipment	$ 880
Jell Supply	155
Leap Tech	2,300
Total	$ 3,335

The total of the vendor balances in the accounts payable subsidiary ledger agrees with the balance in Accounts Payable in the general ledger: $3,335.

EB–22

Date	Description
Dec. 12	From the purchases journal, Frost Company made a purchase on account from Larry Carpenter.
20	From the general journal, Frost Company issued a debit memo to Larry Carpenter for returned goods or an adjustment on damaged goods.
29	From the cash payments journal, Frost Company made a cash payment to Larry Carpenter.

EB–23

a. Cash payments are recorded in the **cash payments** journal.
b. Adjusting entries are recorded in the **general** journal.
c. Correct as recorded.
d. Sales on account are recorded in the **sales** journal.
e. Cash payments (by check or currency) are recorded in the **cash payments** journal.
f. Debit memos are recorded in the **general** journal.
g. Cash sales are recorded in the **cash receipts** journal.

PB–24A
Requirements 1, 2 and 3

Sales Journal					**Page 1**
				Accounts Receivable DR	**Cost of Goods Sold DR**
Date	**Invoice No.**	**Customer Account Debited**	**Post. Ref.**	**Sales Revenue CR**	**Merchandise Inventory CR**
Jul. 2		Intel, Inc.	✓	1,500	200
9		A. B. Miller	✓	7,700	5,200
11		Speedy Electric	✓	5,400	3,350
15		William & Bill	✓	3,400	2,400
20		Speedy Electric	✓	500	250
25		Oscar Co.	✓	1,520	1,000
29		R. O. Bart	✓	200	100
31		Totals		20,220	12,500
				(12/41)	(51/15)

Debits: Accounts Receivable + Cost of Goods Sold
$20,220 + $12,500 = **$32,720**

Credits: Sales Revenue + Merchandise Inventory
$20,220 + $12,500 = **$32,720**

PB–24A, cont.Requirements 1, 2, and 3, cont.

Cash Receipts Journal							**Page 1**
							Cost of Goods Sold DR
Date	**Account Credited**	**Post. Ref.**	**Cash DR**	**Accounts Receivable CR**	**Sales Revenue CR**	**Other Accounts CR**	**Merchandise Inventory CR**
Jul. 3	Office Supplies	16	80			80	
7			2,300		2,300		1,500
10	Land	19	10,000			10,000	
12	Intel, Inc.	✓	1,500	1,500			
14			2,600		2,600		1,700
21			980		980		640
22	A. B. Miller	✓	4,000	4,000			
25	William & Bill	✓	3,400	3,400			
27	Notes Receivable	13	5,000			5,000	
28			3,710		3,710		2,450
31	A. B. Miller	✓	2,700	2,700			
	Totals		36,270	11,600	9,590	15,080	6,290
			(11)	(12)	(41)	(X)	(51/15)

Debits: Cash + Cost of Goods Sold
$36,270 + $6,290 = **$42,560**

Credits: Accounts Receivable + Sales Revenue + Other Accounts + Merchandise Inventory
$11,600 + $9,590 + $15,080 + $6,290 = **$42,560**

PB–25A
Requirements 1, 2 and 3

Purchases Journal									**Page 1**
				Accounts	**Merchandise**	**Office**	**Other Accounts DR**		
Date	**Vendor Account Credited**	**Terms**	**Post. Ref.**	**Payable CR**	**Inventory DR**	**Supplies DR**	**Account Title**	**Post. Ref.**	**Amount**
Dec. 2	Tomas	1/10, n/30	✓	4,500	4,500				
5	Right Supply	1/10, n/30	✓	440		440			
9	Ace Equipment	n/30	✓	6,600			Equipment	181	6,600
12	Callahan Golf	3/10, n/30	✓	4,000	4,000				
21	Dormer, Inc.	2/10, n/45	✓	3,400	3,400				
22	Office World, Inc.	n/30	✓	600		600			
31	Totals			19,540	11,900	1,040			6,600
				(211)	(131)	(171)			(X)

Debits: Merchandise Inventory + Office Supplies + Other Accounts
$11,900 + $1,040 + $6,600 = **$19,540**

Credits: Accounts Payable
$19,540

PB–25A, cont.
Requirements 1, 2, and 3, cont.

Cash Payments Journal							**Page 1**
Date	**Ck. No.**	**Account Debited**	**Post. Ref.**	**Other Accounts DR**	**Accounts Payable DR**	**Merchandise Inventory CR**	**Cash CR**
Dec. 3		Rent Expense	564	2,300			2,300
8		Utilities Expense	583	580			580
11		Tomas[1]	✓		4,500	45	4,455
13		Merchandise Inventory	131	600			600
14		Prepaid Insurance	161	1,400			1,400
16		Right Supply[2]	✓		440		440
18		Utilities Expense	583	200			200
21		Callahan Golf[3]	✓		4,000	120	3,880
31		Dormer, Inc.[4]	✓		2,400	48	2,352
31		Totals		5,080	11,340	213	16,207
				(X)	(211)	(131)	(111)

[1]$4,500 × 1% = $45; $4,500 – $45 = $4,455
[2]Did not make payment within the discount period
[3]$4,000 × 3% = $120; $4,000 – $120 = $3,880
[4]$3,400 – $1,000 = $2,400; $2,400 × 2% = $48; $2,400 − $48 = $2,352

Debits: Other Accounts + Accounts Payable
$5,080 + $11,340 = **$16,420**

Credits: Merchandise Inventory + Cash
$213 + $16,207 = **$16,420**

PB–25A, cont.
Requirements 1, 2 and 3, cont.

Date	Accounts and Explanation	Post. Ref.	Debit	Credit
Dec. 10	Accounts Payable—Ace Equipment	211/✓	6,600	
	Equipment	181		6,600
	Debit memo issued for returned equipment.			
26	Accounts Payable—Dormer, Inc.	211/✓	1,000	
	Merchandise Inventory	131		1,000
	Debit memo issued for purchase return.			

PB–26A
Requirements 1 and 5

Cash					No. 111
				Balance	
Date	Post. Ref.	Debit	Credit	Debit	Credit
Bal.				15,000	
May 31	CR.5	11,475		26,475	
31	CP.8		11,463	15,012	

Accounts Receivable					No. 112
				Balance	
Date	Post. Ref.	Debit	Credit	Debit	Credit
Bal.				1,700	
May 31	S.7	11,450		13,150	
31	CR.5		8,200	4,950	

PB–26A, cont.
Requirements 1 and 5, cont.

Merchandise Inventory					No. 114
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				7,000	
May 10	CP.8	1,000		8,000	
29	J.6		575	7,425	
31	S.7		5,450	1,975	
31	CR.5		350	1,625	
31	P.10	5,575		7,200	
31	CP.8		87	7,113	

Office Supplies					No. 116
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				600	
May 24	CR.5		125	475	
31	P.10	500		975	

Prepaid Insurance					No. 117
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				0	
May 22	CP.8	1,400		1,400	

Furniture					No. 151
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				2,200	
May 5	CP.8	2,950		5,150	
22	P.10	500		5,650	

PB–26A, cont.
Requirements 1 and 5, cont.

Accounts Payable					No. 211
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					900
May 29	J.6	575			325
31	P.10		6,575		6,900
31	CP.8	3,400			3,500

Common Stock					No. 311
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					10,000

Retained Earnings					No. 314
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					11,400

Sales Revenue					No. 411
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					7,800
May 31	S.7		11,450		19,250
31	CR.5		1,800		21,050

PB–26A, cont.
Requirements 1 and 5, cont.

Interest Revenue					No. 419
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					1,300
May 8	CR.5		1,350		2,650

Cost of Goods Sold					No. 511
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				2,800	
May 31	S.7	5,450		8,250	
31	CR.5	350		8,600	

Salaries Expense					No. 531
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				1,900	
May 31	CP.8	2,250		4,150	

Utilities Expense					No. 541
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				200	
May 25	CP.8	550		750	

PB-26A, cont.
Requirements 2 and 4

Accounts Receivable—Balakrishnan Co.					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				1,700	

Accounts Receivable—Berkner Co.					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				0	
May 9	S.7	5,700		5,700	
19	CR.5		5,700	0	
29	S.7	2,400		2,400	

Accounts Receivable—K. D. King					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				0	
May 2	S.7	2,200		2,200	
12	CR.5		2,200	0	
18	S.7	300		300	
31	CR.5		300	0	

Accounts Receivable—M. O. Small					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				0	
May 15	S.7	850		850	

Accounts Payable—Henderson Co.					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					0
May 3	P.10		2,900		2,900
13	CP.8	2,900			0
22	P.10		500		500

PB–26A, cont.
Requirements 2 and 4, cont.

Accounts Payable—Magyar, Inc.					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					0
May 13	P.10		500		500
28	P.10		575		1,075
29	J.6	575			500
30	CP.8	500			0

Accounts Payable—Silva Distributing					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					0
May 20	P.10		2,100		2,100

Accounts Payable—White Co.					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					900

PB–26A, cont.
Requirements 3, 4, 5 and 6

Sales Journal					**Page 7**
				Accounts Receivable DR	**Cost of Goods Sold DR**
Date	**Invoice No.**	**Customer Account Debited**	**Post. Ref.**	**Sales Revenue CR**	**Merchandise Inventory CR**
2018					
May 2	913	K. D. King	✓	2,200	1,500
9	914	Berkner Co.	✓	5,700	2,000
15	915	M. O. Small	✓	850	400
18	916	K. D. King	✓	300	150
29	917	Berkner Co.	✓	2,400	1,400
31		Totals		11,450	5,450
				(112/411)	(511/114)

Debits: Accounts Receivable + Cost of Goods Sold
$11,450 + $5,450 = **$16,900**

Credits: Sales Revenue + Merchandise Inventory
$11,450 + $5,450 = **$16,900**

PB–26A, cont.
Requirements 3, 4, 5 and 6, cont.

Cash Receipts Journal							**Page 5**
							Cost of Goods Sold DR
Date	**Account Credited**	**Post. Ref.**	**Cash DR**	**Accounts Receivable CR**	**Sales Revenue CR**	**Other Accounts CR**	**Merchandise Inventory CR**
2018							
May 5			1,800		1,800		350
8	Interest Revenue	419	1,350			1,350	
12	K. D. King	✓	2,200	2,200			
19	Berkner Co.	✓	5,700	5,700			
24	Office Supplies	116	125			125	
31	K. D. King	✓	300	300			
31	Totals		11,475	8,200	1,800	1,475	350
			(111)	(112)	(411)	(X)	(511/114)

Debits: Cash + Cost of Goods Sold
$11,475 + $350 = **$11,825**

Credits: Accounts Receivable + Sales Revenue + Other Accounts + Merchandise Inventory
$8,200 + $1,800 + $1,475 + $350 = **$11,825**

PB–26A, cont.
Requirements 3, 4, 5 and 6, cont.

Purchases Journal									**Page 10**
				Accounts	**Merchandise**	**Office**	**Other Accounts DR**		
Date	**Vendor Account Credited**	**Terms**	**Post. Ref.**	**Payable CR**	**Inventory DR**	**Supplies DR**	**Account Title**	**Post. Ref.**	**Amount**
2018									
May 3	Henderson Co.	3/10, n/60	✓	2,900	2,900				
13	Magyar, Inc.	n/EOM	✓	500		500			
20	Silva Distributing	n/30	✓	2,100	2,100				
22	Henderson Co.	3/10, n/60	✓	500			Furniture	151	500
28	Magyar, Inc.	2/10, n/30	✓	575	575				
31	Totals			6,575	5,575	500			500
				(211)	(114)	(116)			(X)

Debits: Merchandise Inventory + Office Supplies + Other Accounts
$5,575 + $500 + $500 = **$6,575**

Credits: Accounts Payable
$6,575

PB–26A, cont.
Requirements 3, 4, 5 and 6, cont.

Cash Payments Journal							**Page 8**
Date	**Ck. No.**	**Account Debited**	**Post. Ref.**	**Other Accounts DR**	**Accounts Payable DR**	**Merchandise Inventory CR**	**Cash CR**
2018							
May 5	532	Furniture	151	2,950			2,950
10	533	Merchandise Inventory	114	1,000			1,000
13	534	Henderson Co.[1]	✓		2,900	87	2,813
22	535	Prepaid Insurance	117	1,400			1,400
25	536	Utilities Expense	541	550			550
30	537	Magyar, Inc.	✓		500		500
31	538	Salaries Expense	531	2,250			2,250
31		Totals		8,150	3,400	87	11,463
				(X)	(211)	(114)	(111)

[1]$2,900 × 3% = $87; $2,900 – $87 = $2,813

Debits: Other Accounts + Accounts Payable
$8,150 + $3,400 = **$11,550**

Credits: Merchandise Inventory + Cash
$87 + $11,463 = **$11,550**

PB–26A, cont.
Requirements 3, 4, 5 and 6, cont.

General Journal				Page 6
Date	**Accounts and Explanation**	**Post. Ref.**	**Debit**	**Credit**
May 29	Accounts Payable—Magyar, Inc.	211/✓	575	
	Merchandise Inventory	114		575
	Issued debit memo for purchase return.			

Requirement 6

TULSA COMPUTER SECURITY
Trial Balance
May 31, 2018

Acct. No.	Account Name	Debit	Credit
111	Cash	$ 15,012	
112	Accounts Receivable	4,950	
114	Merchandise Inventory	7,113	
116	Office Supplies	975	
117	Prepaid Insurance	1,400	
151	Furniture	5,650	
211	Accounts Payable		$ 3,500
311	Common Stock		10,000
314	Retained Earnings		11,400
411	Sales Revenue		21,050
419	Interest Revenue		2,650
511	Cost of Goods Sold	8,600	
531	Salaries Expense	4,150	
541	Utilities Expense	750	
	Totals	$ 48,600	$ 48,600

PB–26A, cont.
Requirement 6, cont.

Accounts Receivable Subsidiary Ledger	
Customer	**Balance**
Balakrishnan Co.	$ 1,700
Berkner Co.	2,400
K. D. King	0
M. O. Small	850
Total	$ 4,950

The total of the customer balances in the accounts receivable subsidiary ledger agrees with the balance in Accounts Receivable in the general ledger: $4,950.

Accounts Payable Subsidiary Ledger	
Vendor	**Balance**
Henderson Co.	$ 500
Magyar, Inc.	0
Silva Distributing	2,100
White Co.	900
Total	$ 3,500

The total of the vendor balances in the accounts payable subsidiary ledger agrees with the balance in Accounts Payable in the general ledger: $3,500.

Problems (Group B)

PB–27B
Requirements 1, 2 and 3

Sales Journal					**Page 1**
				Accounts Receivable DR	**Cost of Goods Sold DR**
Date	**Invoice No.**	**Customer Account Debited**	**Post. Ref.**	**Sales Revenue CR**	**Merchandise Inventory CR**
Nov. 2		Intelysis, Inc.	✓	2,200	400
8		A. Z. Morris	✓	7,500	5,000
11		Sloan Electric	✓	5,000	3,450
15		West and Michael	✓	3,000	2,200
19		Sloan Electric	✓	700	200
22		Olivia Co.	✓	1,510	980
27		R. A. Brown	✓	230	110
30		Totals		20,140	12,340
				(12/41)	(51/15)

Debits: Accounts Receivable + Cost of Goods Sold
$20,140 + $12,340 = **$32,480**

Credits: Sales Revenue + Merchandise Inventory
$20,140 + $12,340 = **$32,480**

PB–27B, cont.
Requirements 1, 2 and 3, cont.

Cash Receipts Journal							**Page 1**
							Cost of Goods Sold DR
Date	**Account Credited**	**Post. Ref.**	**Cash DR**	**Accounts Receivable CR**	**Sales Revenue CR**	**Other Accounts CR**	**Merchandise Inventory CR**
Nov. 6	Office Supplies	16	85			85	
6			2,400		2,400		1,400
9	Land	19	9,000			9,000	
11	Intelysis, Inc.	✓	2,200	2,200			
13			2,200		2,200		1,750
20			940		940		640
21	A. Z. Morris	✓	4,400	4,400			
22	West and Michael	✓	3,000	3,000			
25	Notes Receivable	13	5,800			5,800	
27			3,780		3,780		2,430
30	A. Z. Morris	✓	2,200	2,200			
30	Totals		36,005	11,800	9,320	14,885	6,220
			(11)	(12)	(41)	(X)	(51/15)

Debits: Cash + Cost of Goods Sold
$36,005 + $6,220 = **$42,225**
Credits: Accounts Receivable + Sales Revenue + Other Accounts + Merchandise Inventory
$11,800 + $9,320 + $14,885 + $6,220 = **$42,225**

PB–28B
Requirements 1, 2 and 3

Purchases Journal									**Page 1**
							Other Accounts DR		
Date	**Vendor Account Credited**	**Terms**	**Post. Ref.**	**Accounts Payable CR**	**Merchandise Inventory DR**	**Office Supplies DR**	**Account Title**	**Post. Ref.**	**Amount**
Dec. 2	Tighe	3/10, n/30	✓	4,100	4,100				
5	Rapid Supply	3/10, n/30	✓	470		470			
9	A-1 Equipment	n/30	✓	6,900			Equipment	181	6,900
12	Crystal Golf	1/10, n/30	✓	4,900	4,900				
21	Devin, Inc.	1/10, n/45	✓	3,000	3,000				
22	Office Stuff, Inc.	n/30	✓	100		100			
31	Totals			19,470	12,000	570			6,900
				(211)	(131)	(171)			(X)

Debits: Merchandise Inventory + Office Supplies + Other Accounts
$12,000 + $570 + $6,900 = **$19,470**

Credits: Accounts Payable
$19,470

PB–28B, cont.
Requirements 1, 2 and 3, cont.

Cash Payments Journal							Page 1
Date	**Ck. No.**	**Account Debited**	**Post. Ref.**	**Other Accounts DR**	**Accounts Payable DR**	**Merchandise Inventory CR**	**Cash CR**
Dec. 3		Rent Expense	564	2,200			2,200
8		Utilities Expense	583	510			510
11		Tighe[1]	✓		4,100	123	3,977
13		Merchandise Inventory	131	660			660
14		Prepaid Insurance	161	1,200			1,200
16		Rapid Supply[2]	✓		470		470
18		Utilities Expense	583	500			500
21		Crystal Golf[3]	✓		4,900	49	4,851
31		Devin, Inc.[4]	✓		2,000	20	1,980
31		Totals		5,070	11,470	192	16,348
				(X)	(211)	(131)	(111)

[1]$4,100 × 3% = $123; $4,100 – $123 = $3,977
[2]Did not make payment within the discount period
[3]$4,900 × 1% = $49; $4,900 – $49 = $4,851
[4]$3,000 – $1,000 = $2,000; $2,000 × 1% = $20; $2,000 – $20 = $1,980

Debits: Other Accounts + Accounts Payable
$5,070 + $11,470 = **$16,540**

Credits: Merchandise Inventory + Cash
$192 + $16,348 = **$16,540**

PB–28B, cont.
Requirements 1, 2 and 3, cont.

Date	Accounts and Explanation	Post. Ref.	Debit	Credit
Dec. 10	Accounts Payable—A-1 Equipment	211/✓	6,900	
	Equipment	181		6,900
	Debit memo issued for returned equipment.			
26	Accounts Payable—Devin, Inc.	211/✓	1,000	
	Merchandise Inventory	131		1,000
	Debit memo issued for purchase return.			

PB–29B
Requirements 1 and 5

Cash					No. 111
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				15,800	
Mar. 31	CR.3	11,450		27,250	
31	CP.9		10,525	16,725	

Accounts Receivable					No. 112
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				1,900	
Mar. 31	S.8	12,600		14,500	
31	CR.3		9,100	5,400	

Merchandise Inventory					No. 114
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				6,500	
Mar. 10	CP.9	1,400		7,900	
29	J.4		550	7,350	
31	S.8		4,850	2,500	
31	CR.3		300	2,200	
31	P.6	5,250		7,450	
31	CP.9		75	7,375	

PB–29B, cont.
Requirements 1 and 5, cont.

Office Supplies					No. 116
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				600	
Mar. 24	CR.3		100	500	
31	P.6	350		850	

Prepaid Insurance					No. 117
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				0	
Mar. 22	CP.9	1,800		1,800	

Furniture					No. 151
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				2,000	
Mar. 5	CP.9	2,450		4,450	
22	P.6	400		4,850	

Accounts Payable					No. 211
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					900
Mar. 29	J.4	550			350
31	P.6		6,000		6,350
31	CP.9	2,850			3,500

Common Stock					No. 311
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					14,000

PB–29B, cont.
Requirements 1 and 5, cont.

Retained Earnings					No. 314
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					6,600

Sales Revenue					No. 411
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					7,600
Mar. 31	S.8		12,600		20,200
31	CR.3		1,100		21,300

Interest Revenue					No. 419
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					1,400
Mar. 8	CR.3		1,150		2,550

PB–29B, cont.
Requirements 1 and 5, cont.

Cost of Goods Sold					No. 511
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				2,100	
Mar. 31	S.8	4,850		6,950	
31	CR.3	300		7,250	

Salaries Expense					No. 531
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				1,300	
Mar. 31	CP.9	1,550		2,850	

Utilities Expense					No. 541
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				300	
Mar.25	CP.9	550		850	

PB-29B, cont.
Requirements 2 and 4

Accounts Receivable—Arrundel Co.					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				1,900	

Accounts Receivable—Common Co.					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				0	
Mar. 9	S.8	5,700		5,700	
19	CR.3		5,700	0	
29	S.8	2,800		2,800	

Accounts Receivable—L. E. Kingston					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				0	
Mar. 2	S.8	3,000		3,000	
12	CR.3		3,000	0	
18	S.8	400		400	
31	CR.3		400	0	

Accounts Receivable—Suarez Co.					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				0	
Mar. 15	S.8	700		700	

Accounts Payable—High					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					0
Mar. 3	P.6		2,500		2,500
13	CP.9	2,500			0
22	P.6		400		400

PB-29B, cont.
Requirements 2 and 4, cont.

Accounts Payable—Mann Corp.					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					0
Mar. 13	P.6		350		350
28	P.6		550		900
29	J.4	550			350
30	CP.9	350			0

Accounts Payable—James Swenson					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					0
Mar. 20	P.6		2,200		2,200

Accounts Payable—Young Co.					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					900

PB–29B, cont.
Requirements 3, 4, 5 and 6

Sales Journal					Page 8
				Accounts Receivable DR	**Cost of Goods Sold DR**
Date	**Invoice No.**	**Customer Account Debited**	**Post. Ref.**	**Sales Revenue CR**	**Merchandise Inventory CR**
2018					
Mar. 2	191	L. E. Kingston	✓	3,000	800
9	192	Common Co.	✓	5,700	2,200
15	193	Suarez Co.	✓	700	250
18	194	L. E. Kingston	✓	400	200
29	195	Common Co.	✓	2,800	1,400
31		Totals		12,600	4,850
				(112/411)	(511/114)

Debits: Accounts Receivable + Cost of Goods Sold
$12,600 + $4,850 = **$17,450**

Credits: Sales Revenue + Merchandise Inventory
$12,600 + $4,850 = **$17,450**

PB–29B, cont.
Requirements 3, 4, 5 and 6, cont.

Cash Receipts Journal							**Page 3**
							Cost of Goods Sold DR
Date	**Account Credited**	**Post. Ref.**	**Cash DR**	**Accounts Receivable CR**	**Sales Revenue CR**	**Other Accounts CR**	**Merchandise Inventory CR**
2018							
Mar. 4			1,100		1,100		300
8	Interest Revenue	419	1,150			1,150	
12	L. E. Kingston	✓	3,000	3,000			
19	Common Co.	✓	5,700	5,700			
24	Office Supplies	116	100			100	
31	L. E. Kingston	✓	400	400			
31	Totals		11,450	9,100	1,100	1,250	300
			(111)	(112)	(411)	(X)	(511/114)

Debits: Cash + Cost of Goods Sold
$11,450 + $300 = **$11,750**

Credits: Accounts Receivable + Sales Revenue + Other Accounts + Merchandise Inventory
$9,100 + $1,100 + $1,250 + $300 = **$11,750**

PB–29B, cont.
Requirements 3, 4, 5 and 6, cont.

Purchases Journal									**Page 6**
							Other Accounts DR		
Date	**Vendor Account Credited**	**Terms**	**Post. Ref.**	**Accounts Payable CR**	**Merchandise Inventory DR**	**Office Supplies DR**	**Account Title**	**Post. Ref.**	**Amount**
2018									
Mar. 3	High	3/10, n/60	✓	2,500	2,500				
13	Mann Corp.	n/EOM	✓	350		350			
20	James Swenson	n/30	✓	2,200	2,200				
22	High	3/10, n/60	✓	400			Furniture	151	400
28	Mann Corp.	2/10, n/30	✓	550	550				
31	Totals			6,000	5,250	350			400
				(211)	(114)	(116)			(X)

Debits: Merchandise Inventory + Office Supplies + Other Accounts
$5,250 + $350 + $400 = **$6,000**

Credits: Accounts Payable
$6,000

PB–29B, cont.
Requirements 3, 4, 5 and 6, cont.

Cash Payments Journal							**Page 9**
Date	**Ck. No.**	**Account Debited**	**Post. Ref.**	**Other Accounts DR**	**Accounts Payable DR**	**Merchandise Inventory CR**	**Cash CR**
2018							
Mar. 5	473	Furniture	151	2,450			2,450
10	474	Merchandise Inventory	114	1,400			1,400
13	475	High[1]	✓		2,500	75	2,425
22	476	Prepaid Insurance	117	1,800			1,800
25	477	Utilities Expense	541	550			550
30	478	Mann Corp.	✓		350		350
31	479	Salaries Expense	531	1,550			1,550
31		Totals		7,750	2,850	75	10,525
				(X)	(211)	(114)	(111)

[1]$2,500 × 3% = $75; $2,500 – $75 = $2,425

Debits: Other Accounts + Accounts Payable
$7,750 + $2,850 = **$10,600**

Credits: Merchandise Inventory + Cash
$75 + $10,525 = **$10,600**

PB–29B, cont.
Requirements 3, 4, 5 and 6, cont.

General Journal				Page 4
Date	**Accounts and Explanation**	**Post. Ref.**	**Debit**	**Credit**
Mar. 29	Accounts Payable—Mann Corp.	211/✓	550	
	Merchandise Inventory	114		550
	Issued debit memo for purchase return.			

Requirement 6

ATLANTA COMPUTER SECURITY
Trial Balance
March 31, 2018

Acct. No.	Account Name	Debit	Credit
111	Cash	$ 16,725	
112	Accounts Receivable	5,400	
114	Merchandise Inventory	7,375	
116	Office Supplies	850	
117	Prepaid Insurance	1,800	
151	Furniture	4,850	
211	Accounts Payable		$ 3,500
311	Common Stock		14,000
314	Retained Earnings		6,600
411	Sales Revenue		21,300
419	Interest Revenue		2,550
511	Cost of Goods Sold	7,250	
531	Salaries Expense	2,850	
541	Utilities Expense	850	
	Totals	$ 47,950	$ 47,950

PB–29B, cont.
Requirement 6, cont.

Accounts Receivable Subsidiary Ledger

Customer	Balance
Arrundel Co.	$ 1,900
Common Co.	2,800
L. E. Kingston	0
Suarez	700
Total	$ 5,400

The total of the customer balances in the accounts receivable subsidiary ledger agrees with the balance in Accounts Receivable in the general ledger: $5,400.

Accounts Payable Subsidiary Ledger

Vendor	Balance
High	$ 400
Mann Corp.	0
James Swenson	2,200
Young Co.	900
Total	$ 3,500

The total of the vendor balances in the accounts payable subsidiary ledger agrees with the balance in Accounts Payable in the general ledger: $3,500.

Continuing Problem

PB–31
Requirements 1 and 2

Sales Journal				**Page 2**
			Accounts Receivable DR	**Cost of Goods Sold DR**
Date	**Customer Account Debited**	**Post. Ref.**	**Sales Revenue CR**	**Merchandise Inventory CR**
2019				
Jan. 10			388[1]	200
21			588[2]	220
30			2,695[3]	1,300
31	Totals		3,671	1,720

[1]40 × $10 = $400; $400 × 3% = $12; $400 – $12 = $388
[2]60 × $10 = $600; $600 × 2% = $12; $600 – $12 = $588
[3]275 × $10 = $2,750; $2,750 × 2% = $55; $2,750 – $55 = $2,695

Debits: Accounts Receivable + Cost of Goods Sold
$3,671 + $1,720 = **$5,391**

Credits: Sales Revenue + Merchandise Inventory
$3,671 + $1,720 = **$5,391**

PB–31, cont.
Requirements 1 and 2, cont.

Cash Receipts Journal							Page 5
							Cost of Goods Sold DR
Date	Account Credited	Post. Ref.	Cash DR	Accounts Receivable CR	Sales Revenue CR	Other Accounts CR	Merchandise Inventory CR
2019							
Jan. 2			60		60		24
8	Merchandise Inventory		16			16	
12			388	388			
23			588	588			
31			2,695	2,695			
31	Totals		3,747	3,671	60	16	24

Debits: Cash + Cost of Goods Sold
$3,747 + $24 = **$3,771**

Credits: Accounts Receivable + Sales Revenue + Other Accounts + Merchandise Inventory
$3,671 + $60 + $16 + $24 = **$3,771**

PB–31, cont.
Requirements 1 and 2, cont.

Purchases Journal									Page 7
							Other Accounts DR		
Date	**Vendor Account Credited**	**Terms**	**Post. Ref.**	**Accounts Payable CR**	**Merchandise Inventory DR**	**Office Supplies DR**	**Account Title**	**Post. Ref.**	**Amount**
2019									
Jan. 3		2/10, n/30		250	250				
14		4/15, n/30		400	400				
25		2/10, n/30		1,600	1,600				
31	Totals			2,250	2,250	0			0

Debits: Merchandise Inventory + Office Supplies + Other Accounts
$2,250 + $0 + $0 = **$2,250**

Credits: Accounts Payable
$2,250

PB–31, cont.
Requirements 1 and 2, cont.

Cash Payments Journal							**Page 6**
Date	**Ck. No.**	**Account Debited**	**Post. Ref.**	**Other Accounts DR**	**Accounts Payable DR**	**Merchandise Inventory CR**	**Cash CR**
2019							
Jan. 1		Merchandise Inventory		40			40
7[1]					250	5	245
20[2]					350	14	336
27		Merchandise Inventory		48			48
29[3]					1,600	32	1,568
31		Totals		88	2,200	51	2,237

[1]$250 × 2% = $5; $250 – $5 = $245
[2]$400 − $50 = $350; 350 × 4% = $14; $350 – $14 = $336
[3]$1,600 × 2% = $32; $1,600 – $32 = $1,568

Debits: Other Accounts + Accounts Payable
$88 + $2,200 = **$2,288**

Credits: Merchandise Inventory + Cash
$51 + $2,237 = **$2,288**

PB–31, cont.
Requirements 1 and 2, cont.

General Journal				Page 4
Date	**Accounts and Explanation**	**Post. Ref.**	**Debit**	**Credit**
Jan. 18	Accounts Payable		50	
	Merchandise Inventory			50

PB–32
Requirements 1 and 2

Sales Journal				**Page 1**
			Accounts Receivable DR	**Cost of Goods Sold DR**
Date	**Customer Account Debited**	**Post. Ref.**	**Sales Revenue CR**	**Merchandise Inventory CR**
2018				
Dec. 11	Happy Maids		5,500	2,000
28	Bridget, Inc.		6,435[1]	2,022
31	Totals		11,935	4,022

[1]$6,500 × 1% = $65; $6,500 – $65 = $6,435

Debits: Accounts Receivable + Cost of Goods Sold
$11,935 + $4,022 = **$15,957**

Credits: Sales Revenue + Merchandise Inventory
$11,935 + $4,022 = **$15,957**

PB–32, cont.
Requirements 1 and 2, cont.

Cash Receipts Journal							**Page 1**
							Cost of Goods Sold DR
Date	**Account Credited**	**Post. Ref.**	**Cash DR**	**Accounts Receivable CR**	**Sales Revenue CR**	**Other Accounts CR**	**Merchandise Inventory CR**
2018							
Dec. 21	Happy Maids		4,400	4,400			
31	Bridget Inc.		6,435	6,435			
31	Totals		10,835	10,835	0	0	0

Debits: Cash + Cost of Goods Sold
$10,835 + $0 = **$10,835**

Credits: Accounts Receivable + Sales Revenue + Other Accounts + Merchandise Inventory
$10,835 + $0 = **$10,835**

PB–32, cont.
Requirements 1 and 2, cont.

Purchases Journal									Page 1
							Other Accounts DR		
Date	Vendor Account Credited	Terms	Post. Ref.	Accounts Payable CR	Merchandise Inventory DR	Office Supplies DR	Account Title	Post. Ref.	Amount
2018									
Dec. 2	Sparkle Co.	5/10, n/20		4,000	4,000				
5	Borax	4/10, n/30		6,000	6,000				
31	Totals			10,000	10,000	0			0

Debits: Merchandise Inventory + Office Supplies + Other Accounts
$10,000 + $0 + $0 = **$10,000**

Credits: Accounts Payable
$10,000

PB–32, cont.
Requirements 1 and 2, cont.

Cash Payments Journal							Page 1
Date	**Ck. No.**	**Account Debited**	**Post. Ref.**	**Other Accounts DR**	**Accounts Payable DR**	**Merchandise Inventory CR**	**Cash CR**
2018							
Dec. 9		Borax[1]			6,000	228	5,772
12		Sparkle[2]			2,800	140	2,660
29		Utilities Expense		550			550
30		Sales Commission Expense		214			214
31		Totals		764	8,800	368	9,196

[1]($6,000 – $300) = $5,700 × 4% = $228; $6,000 – $228 = $5,772
[2]($4,000 – $1,200) = $2,800 × 5% = $140; $2,800 – $140 = $2,660

Debits: Other Accounts + Accounts Payable
$764 + $8,800 = **$9,564**

Credits: Merchandise Inventory + Cash
$368 + $9,196 = **$9,564**

PB–32, cont.
Requirements 1 and 2, cont.

General Journal				Page 1
Date	**Accounts and Explanation**	**Post. Ref.**	**Debit**	**Credit**
Dec. 7	Accounts Payable—Sparkle Co.		1,200	
	Merchandise Inventory			1,200
15	Refunds Payable		1,100	
	Accounts Receivable—Happy Maids			1,100
	Merchandise Inventory		400	
	Estimated Returns Inventory			400

Comprehensive Problem for Appendix B

Requirements 1, 3, 5, and 8

Cash					**No. 101**
Date	**Post. Ref.**	**Debit**	**Credit**	**Balance**	
				Debit	**Credit**
Bal.				5,020	
Aug. 31	CR.11	8,715		13,735	
31	CP.5		9,956	3,779	

Accounts Receivable					**No. 102**
Date	**Post. Ref.**	**Debit**	**Credit**	**Balance**	
				Debit	**Credit**
Bal.				22,490	
Aug. 31	S.4	11,800		34,290	
31	CR.11		7495	26,795	

Merchandise Inventory					**No. 105**
Date	**Post. Ref.**	**Debit**	**Credit**	**Balance**	
				Debit	**Credit**
Bal.				41,300	
19	CP.5	850		42,150	
30	CR.11		850	41,300	
31	P.8	9,400		50,700	
31	S.4		3,540	47,160	
31	CR.11		111	47,049	
31	CP.5		14	47,035	

Office Supplies					**No. 109**
Date	**Post. Ref.**	**Debit**	**Credit**	**Balance**	
				Debit	**Credit**
Bal.				1,680	
Aug. 5	CP.5	730		2,410	
31	P.8	240		2,650	
Adj.	J.9		1,650	1,000	

Prepaid Insurance					**No. 117**
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.				2,600	
Adj.	J.9		350	2,250	

Furniture					**No. 160**
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.				37,000	
Aug. 22	P.8	510		37,510	

Accumulated Depreciation—Furniture					**No. 161**
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.					10,000
Adj.	J.9		250		10,250

Accounts Payable					**No. 201**
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.					12,700
Aug. 31	P.8		10,150		22,850
31	CP.5	3,900			18,950

Salaries Payable					**No. 204**
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.					1,300
Aug. 2	CP.5	1,300			0
Adj.	J.9		1,060		1,060

Notes Payable, Long-term					**No. 220**
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.					25,000

Comprehensive Problem, cont.
Requirements 1, 3, 5, and 8, cont.

Common Stock					No. 301
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					20,000

Retained Earnings					No. 305
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					41,090
Clo.	J.9		2,619		43,709
Clo.	J.9	600			43,109

Dividends					No. 310
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				0	
Aug. 31	CP.5	600		600	
Clo.	J.9		600	0	

Income Summary					No. 400
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					0
Clo.	J.9		12,170		12,170
Clo.	J.9	9,551			2,619
Clo.	J.9	2,619			0

Sales Revenue					No. 401
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					0
Aug. 31	S.4		11,800		11,800
31	CR.11		370		12,170
Clo.	J.9	12,170			0

Comprehensive Problem, cont.
Requirements 1, 3, 5, and 8, cont.

Cost of Goods Sold					No. 501
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				0	
Aug. 31	S.4	3,540		3,540	
31	CR.11	111		3,651	
Clo.	J.9		3,651	0	

Salaries Expense					No. 510
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				0	
Aug. 16	CP.5	1,290		1,290	
Adj.	J.9	1,060		2,350	
Clo.	J.9		2,350	0	

Rent Expense					No. 513
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				0	
Aug. 1	CP.5	1,300		1,300	
Clo.	J.9		1,300	0	

Depreciation Expense—Furniture					No. 514
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				0	
Adj.	J.9	250		250	
Clo.	J.9		250	0	

Comprehensive Problem, cont.
Requirements 1, 3, 5, and 8, cont.

Insurance Expense					No. 516
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				0	
Adj.	J.9	350		350	
Clo.	J.9		350	0	

Supplies Expense					No. 519
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				0	
Adj.	J.9	1,650		1,650	
Clo.	J.9		1,650	0	

Subsidiary Ledgers

Accounts Receivable—Friend Co.					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				2,400	
Aug. 4	CR.11		2,400	0	
Aug. 23	S.4	9,000		9,000	

Accounts Receivable—R.T. Loeb					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				0	
Aug. 2	S.4	700		700	
12	CR.11		700	0	

Accounts Receivable—Parker Inc.					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				11,300	

Comprehensive Problem, cont.
Requirements 1, 3, and 5, cont.

Accounts Receivable—K.D. Sanders					
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.				8,790	
Aug. 7	S.4	2,100		10,890	
24	CR.11		4,395	6,495	

Accounts Payable—Bradford Corp.					
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.					0
Aug. 22	P.8		510		510

Accounts Payable—Filter Co.					
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.					12,700
Aug. 8	CP.5	2,500			10,200
26	P.8		240		10,440

Accounts Payable—Goldner Inc.					
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.					0
Aug. 3	P.8		1,400		1,400
11	CP.5	1,400			0

Accounts Payable—Seacrest Supply					
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.					0
Aug. 31	P.8		8,000		8,000

Comprehensive Problem, cont.
Requirements 2 and 3

Sales Journal					**Page 4**
				Accounts Receivable DR	**Cost of Goods Sold DR**
Date	**Invoice No.**	**Customer Account Debited**	**Post. Ref.**	**Sales Revenue CR**	**Merchandise Inventory CR**
Aug. 2	503	R. T. Loeb	✓	700	210
7	504	K. D. Sanders	✓	2,100	630
23	505	Friend Co.	✓	9,000	2,700
31		Totals		11,800	3,540
				(102/401)	(501/105)

Debits: Accounts Receivable + Cost of Goods Sold
$11,800 + $3,540 = **$15,340**

Credits: Sales Revenue + Merchandise Inventory
$11,800 + $3,540 = **$15,340**

Comprehensive Problem, cont.
Requirements 2 and 3, cont.

Cash Receipts Journal							Page 11
							Cost of Goods Sold DR
Date	Account Credited	Post. Ref.	Cash DR	Accounts Receivable CR	Sales Revenue CR	Other Accounts CR	Merchandise Inventory CR
Aug. 4	Friend Co.	✓	2,400	2,400			
4			370		370		111
12	R. T. Loeb	✓	700	700			
24	K. D. Sanders	✓	4,395	4,395			
30	Merchandise Inventory	105	850			850	
31	Totals		8,715	7,495	370	850	111
			(101)	(102)	(401)	(X)	(501/105)

Debits: Cash + Cost of Goods Sold
$8,715 + $111 = **$8,826**

Credits: Accounts Receivable + Sales Revenue + Other Accounts + Merchandise Inventory
$7,495 + $370 + $850 + $111 = **$8,826**

Comprehensive Problem, cont.
Requirements 2 and 3, cont.

Purchases Journal									**Page 8**
							Other Accounts DR		
Date	**Vendor Account Credited**	**Terms**	**Post. Ref.**	**Accounts Payable CR**	**Merchandise Inventory DR**	**Office Supplies DR**	**Account Title**	**Post. Ref.**	**Amount**
Aug. 3	Goldner Inc.	1/15, n/60	✓	1,400	1,400				
22	Bradford Corp.	3/15, n/60	✓	510			Furniture	160	510
26	Filter Co.	2/10, n/30	✓	240		240			
31	Seacrest Supply	1/10, n/30	✓	8,000	8,000				
31	Totals			10,150	9,400	240			510
				(201)	(105)	(109)			(X)

Debits: Merchandise Inventory + Office Supplies + Other Accounts
$9,400 + $240 + $510 = **$10,150**

Credits: Accounts Payable
$10,150

Comprehensive Problem, cont.
Requirements 2 and 3, cont.

Cash Payments Journal							**Page 5**
Date	**Ck. No.**	**Account Debited**	**Post. Ref.**	**Other Accounts DR**	**Accounts Payable DR**	**Merchandise Inventory CR**	**Cash CR**
Aug. 1	682	Rent Expense	513	1,300			1,300
2	683	Salaries Payable	204	1,300			1,300
5	684	Office Supplies	109	730			730
8	685	Filter Co.	✓		2,500		2,500
11	686	Goldner Inc.	✓		1,400	14	1,386
16	687	Salaries Expense	510	1,290			1,290
19	688	Merchandise Inventory	105	850			850
31	689	Dividends	310	600			600
31		Totals		6,070	3,900	14	9,956
				(X)	(201)	(105)	(101)

Debits: Other Accounts + Accounts Payable
$6,070 + $3,900 = **$9,970**

Credits: Merchandise Inventory + Cash
$14 + $9,956 = **$9,970**

Comprehensive Problem, cont.
Requirements 2 and 3, cont.

Requirement 4

AMHERST NETWORKING SYSTEMS
Unadjusted Trial Balance
August 31

Acct. No.	Account Name	Debit	Credit
101	Cash	$ 3,779	
102	Accounts Receivable	26,795	
105	Merchandise Inventory	47,035	
109	Office Supplies	2,650	
117	Prepaid Insurance	2,600	
160	Furniture	37,510	
161	Accumulated Depreciation—Furniture		$ 10,000
201	Accounts Payable		18,950
220	Note Payable—long-term		25,000
301	Common Stock		20,000
305	Retained Earnings		41,090
310	Dividends	600	
401	Sales Revenue		12,170
501	Cost of Goods Sold	3,651	
510	Salaries Expense	1,290	
513	Rent Expense	1,300	
	Totals	$ 127,210	$ 127,210

Comprehensive Problem, cont.
Requirement 4, cont.

Accounts Receivable Subsidiary Ledger

Customer	Balance
Friend Co.	$ 9,000
R. T. Loeb	0
Parker Inc.	11,300
K. D. Sanders	6,495
Total	$26,795

The total of the customer balances in the accounts receivable subsidiary ledger agrees with the balance in Accounts Receivable in the general ledger: $26,795.

Accounts Payable Subsidiary Ledger

Vendor	Balance
Bradford Corp.	$ 510
Filter Co.	10,440
Goldner Inc.	0
Seacrest Supply	8,000
Totals	$ 18,950

The total of the vendor balances in the accounts payable subsidiary ledger agrees with the balance in Accounts Payable in the general ledger: $18,950.

Comprehensive Problem, cont.
Requirement 5

General Journal				Page 9
Date	**Accounts and Explanation**	**Post. Ref.**	**Debit**	**Credit**
Aug. 31(a)	Supplies Expense	519	1,650	
`	Office Supplies	109		1,650
(b)	Insurance Expense	516	350	
	Prepaid Insurance	117		350
(c)	Depreciation Expense—Furniture	514	250	
	Accumulated Depreciation—Furniture	161		250
(d)	Salaries Expense	510	1,060	
	Salaries Payable	204		1,060

Comprehensive Problem, cont.
Requirement 6

AMHERST NETWORKING SYSTEMS Adjusted Trial Balance August 31		
Account Name	**Debit**	**Credit**
Cash	$ 3,779	
Accounts Receivable	26,795	
Merchandise Inventory	47,035	
Office Supplies	1,000	
Prepaid Insurance	2,250	
Furniture	37,510	
Accumulated Depreciation—Furniture		$ 10,250
Accounts Payable		18,950
Salaries Payable		1,060
Note Payable—long-term		25,000
Common Stock		20,000
Retained Earnings		41,090
Dividends	600	
Sales Revenue		12,170
Cost of Goods Sold	3,651	
Salaries Expense	2,350	
Rent Expense	1,300	
Depreciation Expense—Furniture	250	
Insurance Expense	350	
Supplies Expense	1,650	
Totals	$ 128,520	$ 128,520

Comprehensive Problem, cont.
Requirement 7

AMHERST NETWORKING SYSTEMS		
Income Statement		
For the Month Ended August 31		
Net Sales Revenue		$ 12,170
Cost of Goods Sold		(3,651)
Gross Profit		8,519
Operating Expenses:		
Salaries Expense	2,350	
Supplies Expense	1,650	
Rent Expense	1,300	
Insurance Expense	350	
Depreciation Expense—Furniture	250	
Total Operating Expenses		(5,900)
Net Income		$ 2,619

AMHERST NETWORKING SYSTEMS	
Statement of Retained Earnings	
For the Month Ended August 31	
Retained Earnings, August 1	$ 41,090
Net income for the month	2,619
	$ 43,709
Dividends	(600)
Retained Earnings, August 31	$ 43,109

Comprehensive Problem, cont.
Requirement 7, cont.

AMHERST NETWORKING SYSTEMS Balance Sheet August 31		
Assets		
Current Assets:		
Cash	$ 3,779	
Accounts Receivable	26,795	
Merchandise Inventory	47,035	
Office Supplies	1,000	
Prepaid Insurance	2,250	
Total Current Assets		$80,859
Property, Plant, and Equipment:		
Furniture	37,510	
Less: Accumulated Depreciation	10,250	
Total Property, Plant, and Equipment		27,260
Total Assets		$ 108,119
Liabilities		
Current Liabilities:		
Accounts Payable	$ 18,950	
Salaries Payable	1,060	
Total Current Liabilities		$ 20,010
Long-term Liabilities:		
Notes Payable		25,000
Total Liabilities		$ 45,010
Stockholders' Equity		
Common Stock		20,000
Retained Earnings		43,109
Total Stockholders' Equity		63,109
Total Liabilities and Stockholders' Equity		$ 108,119

Comprehensive Problem, cont.
Requirement 8

General Journal				Page 9
Date	**Accounts and Explanation**	**Post. Ref.**	**Debit**	**Credit**
Aug. 31	Sales Revenue	401	12,170	
	Income Summary	400		12,170
	Income Summary	400	9,551	
	Cost of Goods Sold	501		3,651
	Salaries Expense	510		2,350
	Rent Expense	513		1,300
	Depreciation Expense—Furniture	514		250
	Insurance Expense	516		350
	Supplies Expense	519		1,650
	Income Summary	400	2,619	
	Retained Earnings	305		2,619
	Retained Earnings	305	600	
	Dividends	310		600

Comprehensive Problem, cont.

Requirement 9

AMHERST NETWORKING SYSTEMS
Post-Closing Trial Balance
August 31

Account Name	**Debit**	**Credit**
Cash	$ 3,779	
Accounts Receivable	26,795	
Merchandise Inventory	47,035	
Office Supplies	1,000	
Prepaid Insurance	2,250	
Furniture	37,510	
Accumulated Depreciation—Furniture		$ 10,250
Accounts Payable		18,950
Salaries Payable		1,060
Note Payable—long-term		25,000
Common Stock		20,000
Retained Earnings		43,109
Totals	$ 118,369	$ 118,369

Critical Thinking

Tying It All Together Case B-1
Requirement 1

McCormick & Company, Incorporated invests in security technology to protect its data and business processes against risk of data security breaches and cyber attacks.

Requirement 2

Answers will vary but might include security measures such as antivirus software, firewalls, encryption software, and two-step authentication or password security software.

Decision Case B–1
Requirement 1

Accounts Receivable Subsidiary Ledger
April 1

Customer	Balance
Garcia Sales	$ 450
Leewright, Inc.	2,800
Sally Jones	1,100
Jacques LeHavre	0
Total	$ 4,350

Accounts Receivable Subsidiary Ledger
April 30

Customer	Balance
Garcia Sales	$ 4,700
Leewright, Inc.	3,900
Sally Jones	2,000
Jacques LeHavre	0
Total	$ 10,600

Decision Case B-1, cont.
Requirement 2

Sales on Account		
Date	**Customer**	**Amount**
Apr. 8	Jacques LeHavre	$ 2,400
11	Sally Jones	400
15	Leewright, Inc.	2,600
16	Jacques LeHavre	900
24	Sally Jones	2,000
25	Garcia Sales	3,600
29	Garcia Sales	1,100
	Total	$ 13,000

Requirement 3

Date	**Customer**	**Invoice Amount**	**Cash Receipts**
Apr. 3	Garcia Sales	$ 450	$ 450
5	Sally Jones	1,100	1,100
18	Jacques LeHavre	2,400	2,400
21	Sally Jones	400	400
27	Jacques LeHavre	700	700
29	Leewright, Inc.	1,500	1,500
	Total	$ 6,550	$ 6,550

Fraud Case B–1

Didrikson can investigate the suspected fraud by requesting the source documents associated with the checks. If the employee who is approving the cash payments cannot supply the supporting documentation, then the fraud can be confirmed.

Team Project B–1

Team presentations will vary.

Communication Activity B–1

An accounting information system (AIS) collects, records, stores, and processes accounting data to produce information that is useful for decision makers. An effective AIS provides control, compatibility, flexibility, relevance, and a positive cost/benefit relationship.

Control—safeguards a business's assets and reduces the likelihood of fraud and errors.
Compatibility—works smoothly with the business's employees and organizational structure.
Flexibility— accommodates changes in a business over time.
Relevance— provides information that is relevant, improving decision making and reduces uncertainty.
Positive cost/benefit relationship— a system that gives the most benefit for the least cost.

Appendix B
Accounting Information Systems

Review Questions

1. What is an accounting information system (AIS)?

An accounting information system (AIS) is a system that collects, records, stores, and processes accounting data to produce information that is useful for decision makers.

2. What does an effective accounting information system provide?

An effective accounting information system provides control, compatibility, flexibility, relevance, and a positive cost/benefit relationship.

3. Explain the three basic components of an accounting information system.

The three basic components of an accounting information system are source documents and input devices, processing and storage, and outputs.

Source documents provide the evidence for accounting transactions. In a computerized system, the data is transferred into the AIS by keyboard and computer or computerized scanning equipment.

In a manual system, processing of data includes journalizing transactions and posting to the accounts. Computerized systems use software to process transactions. Data is stored in filing cabinets or offsite document warehouses in a manual system. Computerized systems store data on a server.

The outputs are the reports used for decision making, including financial statements.

4. What is a special journal?
A special journal is an accounting journal designed to record a specific type of transaction.

5. What is the purpose of a subsidiary ledger?

A subsidiary ledger holds individual accounts that support a general ledger account. The sum of the balances of the accounts in the subsidiary ledger equals the balance in the control account. Common examples include Accounts Receivable and Accounts Payable. The subsidiary ledger provides details about a general ledger account. For example, the accounts receivable subsidiary ledger provides details about the accounts receivable for each customer as far as amount paid, amount unpaid, amount purchased on credit, and so on.

6. What is a control account?

A control account is a general ledger account whose balance equals the sum of the balances in a group of related accounts in a subsidiary ledger.

7. List the four special journals often used in a manual accounting information system. What types of transactions are recorded in each of the special journals?

The four special journals often used in a manual accounting information system are:

- Sales journal—used to record sales on account
- Cash receipts journal—used to record cash receipts
- Purchases journal—used to record purchases of inventory and other assets on account
- Cash payments journal—used to record cash payments
-

8. Explain the posting process of the sales journal.

Entries in the sales journal are posted to both the accounts receivable subsidiary ledger and the general ledger. Individual accounts receivable are posted daily from the sales journal to the accounts receivable subsidiary ledger. At the end of the month, the totals of the columns are posted to the appropriate accounts in the general ledger: Accounts Receivable, Sales Revenue, Cost of Goods Sold, and Merchandise Inventory.

9. Provide some examples of transactions that would be recorded in the Other Accounts CR column of the cash receipts journal.

The Other Accounts CR column of the cash receipts journal is used to record miscellaneous cash receipt transactions, such as the receipt of cash in exchange for a note payable or the receipt of cash for interest revenue.

10. What are the columns that are typically used in the purchases journal?

The purchases journal typically has special columns for Account Payable CR, Merchandise Inventory DR, Office Supplies DR, and Other Accounts DR. The journal also has columns for the date, vendor account credited, terms of purchase, and posting reference.

11. Explain the posting process of the cash payments journal.

Entries in the cash payments journal are posted to both the accounts payable subsidiary ledger and the general ledger. Individual accounts payable are posted daily from the cash payments journal to the accounts payable subsidiary ledger. At month end, the totals of the columns (except for the Other Accounts DR column) are posted to the appropriate account in the general ledger. Amounts in the Other Accounts DR column are posted individually.

12. When is the general journal used in a manual accounting information system? Provide some examples of transactions that would be recorded in the general journal

Nonroutine transactions are recorded in the general journal. Examples include sales returns and allowances, purchase returns and allowances, adjusting entries, and closing entries.

13. Explain the two components of a computerized accounting information system.

The two components of a computerized accounting information system are hardware and software. Hardware is the electronic equipment: computers, monitors, printers, and the network that connects them. Software is the set of programs that drives the computer. Accounting software reads, edits, and stores transaction data.

14. What are two common entry-level accounting software systems used by small businesses?

The two common entry-level accounting software systems used by small businesses are QuickBooks™ and Sage 50™ Accounting.

15. What is an enterprise resource planning (ERP) system? What are the advantages and disadvantages of using an ERP?

An enterprise resource planning (ERP) system integrates all of a company's functions, departments, and data into a single system. Advantages include reducing costs, helping companies adjust to changes, and replacing separate software systems, such as sales and payroll. Disadvantages include expensive installation costs and a large commitment of time and people.

16. How is QuickBooks organized?

QuickBooks is organized by function or task. A navigation panel on the left-hand side of the screen is used to select a variety of tasks such as vendors, customers, employees, transactions, and reports.

17. How would a business record a sale of services on account in QuickBooks?

To record a sale of services on account in QuickBooks, the transaction is recorded on the customers tab. Transaction data, such as customer name, date, and amount, is entered and the system posts the transaction to the appropriate general ledger accounts.

18. How would a business record a bill received in QuickBooks?

To record a bill received in QuickBooks, use the vendors tab. Data is entered and QuickBooks posts the transaction to the appropriate general ledger accounts.

Short Exercises

SB–1 Evaluating features of an effective accounting information system

Learning Objective 1

In Vogue, a T-shirt business, is growing fast and needs a better accounting information system. Consider the features of an effective system. Which features are most important? Why? Which feature must you consider if your financial resources are limited?

SOLUTION

An effective accounting information system includes control, compatibility, flexibility, relevance, and a positive cost/benefit relationship. All of these features are important, but because In Vogue is growing fast, flexibility is especially important to this company. Flexibility in the system will allow In Vogue to accommodate changes as it grows. Control and relevance are also extremely important. In Vogue must have a system that has internal controls to help safeguard the company's assets, and the company needs relevant data to improve decision making.

If financial resources are limited, the feature that must be considered is the cost/benefit relationship. In Vogue should purchase the system that will provide the most benefits in relation to the amount invested in the system.

SB–2 Defining components of an accounting information system

Learning Objective 1

Match each example with a component of a computerized accounting information system. Components may be used more than once.

Example	Component
1. Server	a. Source documents and input devices
2. Bank checks	b. Processing and storage
3. Reports	c. Outputs
4. Keyboard	
5. Software	
6. Financial statements	
7. Bar code scanner	

SOLUTION

Example	Component
1. Server	b. Processing and Storage
2. Bank checks	a. Source Documents and Input Devices
3. Reports	c. Outputs
4. Keyboard	a. Source Documents and Input Devices
5. Software	b. Processing and Storage
6. Financial statements	c. Outputs
7. Bar code scanner	a. Source Documents and Input Devices

SB–3 Identifying special journals

Learning Objective 2

Use the following abbreviations to indicate the journal in which you would record transactions a through n.

J = General journal

S = Sales journal

CR = Cash receipts journal

P = Purchases journal

CP = Cash payments journal

Transactions:

___ **a.** Cash purchase of merchandise inventory

___ **b.** Collection of dividend revenue earned on an investment

___ **c.** Prepayment of insurance

___ **d.** Borrowing money on a long-term note payable

___ **e.** Purchase of equipment on account

___ **f.** Cost of goods sold along with a credit sale

___ **g.** Cash sale of merchandise inventory

___ **h.** Payment of rent

___ **i.** Depreciation of computer equipment

___ **j.** Purchase of merchandise inventory on account

___ **k.** Collection of accounts receivable

___ **l.** Expiration of prepaid insurance

___ **m.** Sale on account

___ **n.** Payment on account

SOLUTION

a.	CP
b.	CR
c.	CP
d.	CR
e.	P
f.	S
g.	CR
h.	CP
i.	J
j.	P
k.	CR
l.	J
m.	S
n.	CP

SB–4 Recording transactions in a sales journal

Learning Objective 2

Jun. 1	Sold merchandise inventory on account to Fran Jack, $1,220. Cost of goods, $980. Invoice no. 101.
8	Sold merchandise inventory on account to Ireland Frank, $2,025. Cost of goods, $1,640. Invoice no. 102.
13	Sold merchandise inventory on account to Jake Thompson, $420. Cost of goods, $210. Invoice no. 103.
28	Sold merchandise inventory on account to Gabe West, $820. Cost of goods, $620. Invoice no. 104.

Use the following sales journal to record the preceding transactions. All credit sales are terms of n/30.

Sales Journal					Page 1
Date	Invoice No.	Customer Account Debited	Post. Ref.	Accounts Receivable DR Sales Revenue CR	Cost of Goods Sold DR Merchandise Inventory CR
2018					

SOLUTION

Note: This journal shows totals and posting references that are required in Short Exercise SB–5.

Sales Journal					**Page 1**
				Accounts Receivable DR	**Cost of Goods Sold DR**
Date	**Invoice No.**	**Customer Account Debited**	**Post. Ref.**	**Sales Revenue CR**	**Merchandise Inventory CR**
2018					
Jun. 1	101	Fran Jack	✓	1,220	980
8	102	Ireland Frank	✓	2,025	1,640
13	103	Jake Thompson	✓	420	210
28	104	Gabe West	✓	820	620
30		Totals		4,485	3,450
				(112/411)	(511/118)

Note: Short Exercise SB-4 must be completed before attempting Short Exercise SB-5.

SB–5 Posting transactions from a sales journal to a subsidiary ledger and general ledger

Learning Objective 2

Review your results from Short Exercise SB-4.

Requirements

1. Total each column of the sales journal.
2. Open the following four-column accounts in the accounts receivable subsidiary ledger: Accounts Receivable—Frank; Accounts Receivable—Jack; Accounts Receivable—Thompson; Accounts Receivable—West. Post the transactions to the accounts receivable subsidiary ledger.
3. Open the following selected four-column accounts in the general ledger: Accounts Receivable (112); Merchandise Inventory (118), Bal. $5,000; Sales Revenue (411); Cost of Goods Sold (511). Post the total of each column to the general ledger.
4. Balance the total of the customer ending balances in the accounts receivable subsidiary ledger against Accounts Receivable in the general ledger.

SOLUTION

Requirement 1

See sales journal in Short Exercise SB–4.

SB-5, cont.
Requirement 2

Accounts Receivable—Frank					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Jun. 8	S.1	2,025		2,025	

Accounts Receivable—Jack					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Jun. 1	S.1	1,220		1,220	

Accounts Receivable—Thompson					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Jun. 13	S.1	420		420	

Accounts Receivable—West					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Jun. 28	S.1	820		820	

SB-5, cont.
Requirement 3

Accounts Receivable					No. 112
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Jun. 30	S.1	4,485		4,485	

Merchandise Inventory					No. 118
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				5,000	
Jun. 30	S.1		3,450	1,550	

Sales Revenue					No. 411
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Jun. 30	S.1		4,485		4,485

Cost of Goods Sold					No. 511
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Jun. 30	S.1	3,450		3,450	

Requirement 4

Customer	Balance
Frank	$ 2,025
Jack	1,220
Thompson	420
West	820
Total	$ 4,485

The total of the customer balances in the accounts receivable subsidiary ledger agrees with the balance in Accounts Receivable in the general ledger: $4,485.

SB–6 Recording transactions in a cash receipts journal

Learning Objective 2

Jul. 5	Sold merchandise inventory for cash, $1,700. Cost of goods, $1,400.
12	Collected interest revenue of $2,050.
18	Received cash from Heidi Next, $1,200, on account. There was no discount.
29	Received $5,300 from Mitch Dylan in full settlement of his account receivable including sales discounts forfeited of $20.

Use the following cash receipts journal to record the preceding transactions.

Cash Receipts Journal — Page 3

Date	Account Credited	Post. Ref.	Cash DR	Accounts Receivable CR	Sales Revenue CR	Sales Discounts Forfeited CR	Other Accounts CR	Cost of Goods Sold DR Merchandise Inventory CR
2018								

SB–6, cont.

SOLUTION

Requirement 1
Note: This journal shows totals and posting references that are required in Short Exercise SB–7.

Cash Receipts Journal								**Page 3**
								Cost of Goods Sold DR
Date	**Account Credited**	**Post. Ref.**	**Cash DR**	**Accounts Receivable CR**	**Sales Revenue CR**	**Sales Discounts Forfeited CR**	**Other Accounts CR**	**Merchandise Inventory CR**
2018								
Jul. 5			1,700		1,700			1,400
12	Interest Revenue	419	2,050				2,050	
18	Heidi Next	✓	1,200	1,200				
29	Mitch Dylan	✓	5,300	5,280		20		
31	Totals		10,250	6,480	1,700	20	2,050	1,400
			(111)	(112)	(411)	(412)	(X)	(511/118)

Note: Short Exercise SB-6 must be completed before attempting Short Exercise SB-7.

SB–7 Posting transactions from a cash receipts journal to a subsidiary ledger and general ledger

Learning Objective 2

Review your results from Short Exercise SB-6.

Requirements

1. Total each column of the cash receipts journal.
2. Open the following four-column accounts in the accounts receivable subsidiary ledger: Accounts Receivable—Dylan, Bal. $5,280; Accounts Receivable—Next, Bal. $2,250. Post the transactions to the accounts receivable subsidiary ledger.
3. Open the following selected four-column accounts in the general ledger: Cash (111), Bal. $4,550; Accounts Receivable (112), Bal. $7,530; Merchandise Inventory (118), Bal. $3,250; Sales Revenue (411), Bal. $25,000; Sales Discounts Forfeited (412); Interest Revenue (419); Cost of Goods Sold (511), Bal. $14,500. Post the total of each column to the general ledger. Also, post the Other Accounts column to the general ledger.
4. Balance the total of the customer ending balances in the accounts receivable subsidiary ledger against Accounts Receivable in the general ledger.

SOLUTION

Requirement 1

See cash receipts journal in Short Exercise SB-6.

Requirement 2

Accounts Receivable—Dylan					
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.				5,280	
Jul. 29	CR.3		5,280	0	

Accounts Receivable—Next					
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.				2,250	
Jul. 18	CR.3		1,200	1,050	

Requirement 3

Cash					No. 111
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				4,550	
Jul. 31	CR.3	10,250		14,800	

Accounts Receivable					No. 112
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				7,530	
Jul. 31	CR.3		6,480	1,050	

Merchandise Inventory					No. 118
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				3,250	
Jul. 31	CR.3		1,400	1,850	

Sales Revenue					No. 411
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					25,000
Jul. 31	CR.3		1,700		26,700

Sales Discounts Forfeited					No. 412
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Jul. 31	CR.3		20		20

Interest Revenue					No. 419
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Jul. 12	CR.3		2,050		2,050

SB–7, cont.
Requirement 3, cont.

Cost of Goods Sold					No. 511
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				14,500	
Jul. 31	CR.3	1,400		15,900	

Requirement 4

Customer	Balance
Dylan	$ 0
Next	1,050
Total	$ 1,050

The total of the customer balances in the accounts receivable subsidiary ledger agrees with the balance in Accounts Receivable in the general ledger: $1,050.

SB–8 Recording transactions in a purchases journal

Learning Objective 3

Oct. 1	Purchased merchandise inventory on account with credit terms of 4/10, n/30 from Mayer Co., $2,200.
11	Purchased office supplies on account from Bird Co., $600. Terms were n/EOM.
24	Purchased furniture on account with credit terms of 3/10, n/60 from Silly Co., $900.

Use the following purchases journal to record the preceding transactions.

Purchases Journal									Page 6
							Other Accounts DR		
Date	Vendor Account Credited	Terms	Post. Ref.	Accounts Payable CR	Merchandise Inventory DR	Office Supplies DR	Account Title	Post Ref.	Amount
2018									

SOLUTION

Note: This journal shows totals and posting references that are required in Short Exercise SB–9.

Purchases Journal									**Page 6**
							Other Accounts DR		
Date	**Vendor Account Credited**	**Terms**	**Post. Ref.**	**Accounts Payable CR**	**Merchandise Inventory DR**	**Office Supplies DR**	**Account Title**	**Post. Ref.**	**Amount**
2018									
Oct. 1	Mayer Co.	4/10, n/30	✓	2,200	2,200				
11	Bird Co.	n/EOM	✓	600		600			
24	Silly Co.	3/10, n/60	✓	900			Furniture	151	900
31	Totals			3,700	2,200	600			900
				(211)	(115)	(116)			(X)

SB–9 Posting transactions from a purchases journal to a subsidiary ledger and general ledger

Learning Objective 3

Review your results from Short Exercise SB-8.

Requirements

1. Total each column of the purchases journal.
2. Open the following four-column accounts in the accounts payable subsidiary ledger: Accounts Payable—Bird Co.; Accounts Payable—Mayer Co.; Accounts Payable—Silly Co. Post the transactions to the accounts payable subsidiary ledger.
3. Open the following selected four-column accounts in the general ledger: Merchandise Inventory (115); Office Supplies (116); Furniture (151); Accounts Payable (211). Post the total of each column to the general ledger. Also, post the Other Accounts column to the general ledger.
4. Balance the total of the vendor ending balances in the accounts payable subsidiary ledger against Accounts Payable in the general ledger.

SOLUTION

Requirement 1
See purchases journal in Short Exercise SB–8.

Requirement 2

Accounts Payable—Bird Co.					
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Oct. 11	P.6		600		600

Accounts Payable—Mayer Co.					
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Oct. 1	P.6		2,200		2,200

Accounts Payable—Silly Co.					
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Oct. 24	P.6		900		900

SB–9, cont.
Requirement 3

Merchandise Inventory					No. 115
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Oct. 31	P.6	2,200		2,200	

Office Supplies					No. 116
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Oct. 31	P.6	600		600	

Furniture					No. 151
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Oct.24	P.6	900		900	

Accounts Payable					No. 211
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Oct. 31	P.6		3,700		3,700

Requirement 4

Vendor	Balance
Bird	$ 600
Mayer	2,200
Silly	900
Total	$ 3,700

The total of the vendor balances in the accounts payable subsidiary ledger agrees with the balance in Accounts Payable in the general ledger: $3,700.

SB–10 Recording transactions in a cash payments journal

Learning Objective 3

Jan. 5	Issued check no. 430 to purchase equipment for cash, $1,700.
7	Purchased merchandise inventory for cash, $450, issuing check no. 431.
18	Paid Kat Co. amount owed, $775, less $100 discount. Issued check no. 432.
28	Issued check no. 433 to pay utilities, $260. The bill was just received, and there is no liability recorded.

Use the following cash payments journal to record the preceding transactions.

Cash Payments Journal							Page 8
Date	Ck. No.	Account Debited	Post. Ref.	Other Accounts DR	Accounts Payable DR	Merchandise Inventory CR	Cash CR
2018							

SOLUTION

Note: This journal shows totals and posting references that are required in Short Exercise SB–11.

Cash Payments Journal							Page 8
Date	Ck. No.	Account Debited	Post. Ref.	Other Accounts DR	Accounts Payable DR	Merchandise Inventory CR	Cash CR
2018							
Jan. 5	430	Equipment	150	1,700			1,700
7	431	Merchandise Inventory	118	450			450
18	432	Kat Co.	✓		775	100	675
28	433	Utilities Expense	541	260			260
31		Totals		2,410	775	100	3,085
				(X)	(211)	(118)	(111)

Note: Short Exercise SB-10 must be completed before attempting Short Exercise SB-11.

SB–11 Posting transactions from a cash payments journal to a subsidiary ledger and general ledger

Learning Objective 3

Review your results from Short Exercise SB-10.

Requirements

1. Total each column of the cash payments journal.
2. Open the following four-column accounts in the accounts payable subsidiary ledger: Accounts Payable—Kat Co., Bal. $1,900. Post the transactions to the accounts payable subsidiary ledger.
3. Open the following selected four-column accounts in the general ledger: Cash (111), Bal. $5,000; Merchandise Inventory (118), $2,100; Equipment (150), $9,900; Accounts Payable (211), $1,900; Utilities Expense (541). Post the total of each column to the general ledger. Also, post the Other Accounts column to the general ledger.
4. Balance the total of the vendor ending balances in the accounts payable subsidiary ledger against Accounts Payable in the general ledger.

SOLUTION

Requirement 1
See cash payments journal in Short Exercise SB–10.

Requirement 2

Accounts Payable—Kat Co.					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					1,900
Jan. 18	CP.8	775			1,125

SB–11, cont.
Requirement 3

Cash					No. 111
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				5,000	
Jan. 31	CP.8		3,085	1,915	

Merchandise Inventory					No. 118
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				2,100	
Jan. 7	CP.8	450		2,550	
Jan. 31	CP.8		100	2,450	

Equipment					No. 150
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				9,900	
Jan.5	CP.8	1,700		11,600	

Accounts Payable					No. 211
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					1,900
Jan. 31	CP.8	775			1,125

SB–11, cont.
Requirement 3, cont.

Utilities Expense					No. 541
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Jan. 28	CP.8	260		260	

Requirement 4

Vendor	Balance
Kat Co.	$ 1,125
Total	$ 1,125

The total of the vendor balances in the accounts payable subsidiary ledger agrees with the balance in Accounts Payable in the general ledger: $1,125.

SB–12 Recording transactions in a general journal

Learning Objective 3

Mar. 2	Sold merchandise inventory on account, terms n/30, to B. Kelp, issuing invoice no. 501 for $1,000 (cost, $680).
6	Issued credit memo to B. Kelp for $1,000 for merchandise returned to the business by the customer. Also accounted for receipt of the merchandise inventory at cost.
21	Purchased merchandise inventory on credit terms of 3/10, n/30 from Pond Co., $600.
28	Returned damaged merchandise inventory to Pond Co., issuing a debit memo for $600.

Journalize the above transactions that should be recorded in the general journal. If a transaction should not be recorded in the general journal, identify the special journal that should be used. Assume the company uses the perpetual inventory system.

SOLUTION

Date	Accounts and Explanation	Debit	Credit
Mar. 6	Refunds Payable	1,000	
	Accounts Receivable—B. Kelp		1,000
	Merchandise Inventory	680	
	Estimated Returns Inventory		680
	Issued credit memo for sales return.		
28	Accounts Payable—Pond Company	600	
	Merchandise Inventory		600
	Issued debit memo for purchase return.		

Date	Transaction	Special Journal
Mar. 2	Sold merchandise inventory on account	Sales journal
21	Purchased merchandise inventory on account	Purchases journal

SB–13 Understanding components of a computerized accounting information system

Learning Objective 4

Ned Timmons, engineer, is considering using a computerized accounting system for his professional engineering business. Ned has asked that you help him understand the components of a computerized accounting information system by answering the following questions:

Requirements

1. What are the two basic components of a computerized accounting information system?
2. Provide examples of each component.
3. If Ned were interested in an entry-level software system, what software might you recommend?

SOLUTION

Requirement 1
The two basic components of a computerized accounting information system are hardware and software.

Requirement 2
Examples of hardware: computers, monitors, printers, and the network that connects them.
Examples of software: programs that read, edit, process and store transaction data.

Requirement 3
Popular entry–level systems include QuickBooks and Sage 50 Accounting.

Exercises

EB–14 Recording transactions—sales journal

Learning Objective 2

Accounts Receivable DR, Sales Revenue CR column total $1,550

Feb. 1	Sold merchandise inventory on account, terms n/30, to Cole Co., $1,050. Cost of goods, $860. Invoice no. 401.
6	Sold merchandise inventory for cash, $950 (cost, $750).
12	Collected interest revenue of $170.
15	Received cash from Cole Co. in full settlement of its account receivable.
20	Sold merchandise inventory on account, terms n/30, to Dump Co., issuing invoice no. 402 for $500 (cost, $325).
22	Sold merchandise inventory for cash, $600 (cost $530).
26	Sold office supplies to an employee for cash of $150.
28	Received $500 from Dump Co. in full settlement of its account receivable.

Requirements

1. Prepare headings for a sales journal. Journalize the transactions that should be recorded in the sales journal. Assume the company uses the perpetual inventory system.
2. Total each column of the sales journal.

SOLUTION

Requirements 1 and 2

Sales Journal					**Page 1**
				Accounts Receivable DR	**Cost of Goods Sold DR**
Date	**Invoice No.**	**Customer Account Debited**	**Post. Ref.**	**Sales Revenue CR**	**Merchandise Inventory CR**
Feb. 1	401	Cole Co.		1,050	860
20	402	Dump Co.		500	325
28		Totals		1,550	1,185

EB–15 Recording transactions—cash receipts journal

Learning Objective 2

Accounts Receivable CR column total $1,550

Refer to information in Exercise EB-14.

Requirements

1. Prepare headings for a cash receipts journal. Journalize the transactions that should be recorded in the cash receipts journal.
2. Total each column of the cash receipts journal.

SOLUTION

Requirements 1 and 2

	Cash Receipts Journal							**Page 1**
Date	**Account Credited**	**Post. Ref.**	**Cash DR**	**Accounts Receivable CR**	**Sales Revenue CR**	**Sales Discounts Forfeited CR**	**Other Accounts CR**	**Cost of Goods Sold DR / Merchandise Inventory CR**
Feb. 6			950		950			750
12	Interest Revenue		170				170	
15	Cole Co.		1,050	1,050				
22			600		600			530
26	Office Supplies		150				150	
28	Dump Co.		500	500				
28	Totals		3,420	1,550	1,550		320	1,280

EB–16 Using the sales and cash receipts journals

Learning Objective 2

The sales and cash receipts journals of Caverly Office Products include the following entries:

Sales Journal					Page 1
Date	Invoice No.	Customer Account Debited	Post. Ref.	Accounts Receivable DR Sales Revenue CR	Cost of Goods Sold DR Merchandise Inventory CR
2018					
May 7	601	L. Ebert	✓	110	63
10	602	T. Ross	✓	65	33
10	603	E. Loop	✓	95	37
12	604	B. Goebel	✓	120	76
May 31		Total		390	209

Cash Receipts Journal								Page 5
Date	Account Credited	Post. Ref.	Cash DR	Accounts Receivable CR	Sales Revenue CR	Sales Discounts Forfeited CR	Other Accounts CR	Cost of Goods Sold DR Merchandise Inventory CR
2018								
May 16	L. Ebert	✓						
19	E. Loop	✓						
24			320		320			250
30	T. Ross	✓						
May 31	Total							

Identify the missing information in the cash receipts journal for those transactions listed. All credit sales are terms n/30. Assume all the accounts are paid in full. Also, total the columns in the cash receipts journal and show that total debits equal total credits.

EB–16, cont.

SOLUTION

Cash Receipts Journal								**Page 5**
Date	**Account Credited**	**Post. Ref.**	**Cash DR**	**Accounts Receivable CR**	**Sales Revenue CR**	**Sales Discounts Forfeited CR**	**Other Accounts CR**	**Cost of Goods Sold DR / Merchandise Inventory CR**
2018								
May 16	L. Ebert	✓	**110**	**110**				
19	E. Loop	✓	**95**	**95**				
24			320		320			250
30	T. Ross	✓	**65**	**65**				
31	Totals		**590**	**270**	**320**			**250**

Debits: Cash + Cost of Goods Sold
$590 + $250 = **$840**

Credits: Accounts Receivable + Sales Revenue + Sales Discounts Forfeited + Other Accounts + Merchandise Inventory
$270 + $320 + $0 + $0 + $250 = **$840**

EB–17 Analyzing postings from the cash receipts journal

Learning Objective 2

The cash receipts journal of Silver Plastics follows:

Cash Receipts Journal — Page 7

Date	Account Credited	Post. Ref.	Cash DR	Accounts Receivable CR	Sales Revenue CR	Sales Discounts Forfeited CR	Other Accounts CR	Cost of Goods Sold DR Merchandise Inventory CR
2018								
Jan. 2	Awesome, Corp.	*(g)*	830	810		20		
9	King, Inc.	*(h)*	490	490				
19	Note Receivable	*(i)*	4,480				4,000	
	Interest Revenue	*(j)*					480	
30	J. T. Folk	*(k)*	330	320		10		
31			4,230		4,230			3,500
Jan. 31	Total		10,360	1,620	4,230	30	4,480	3,500
			(a)	*(c)*	*(d)*	*(b)*	*(e)*	*(f)*

Silver's general ledger includes the following selected accounts, along with their account numbers:

Number	**Account**
110	Cash
115	Accounts Receivable
118	Merchandise Inventory
125	Notes Receivable
510	Sales Revenue
512	Sales Discounts Forfeited
520	Interest Revenue
611	Cost of Goods Sold

Indicate whether each posting reference (a) through (k) should be a

- Check mark (✓) for a posting to a customer account in the accounts receivable subsidiary ledger.
- Account number for a posting to an account in the general ledger. If so, give the account number.
- Letter (X) for an amount not posted.

SOLUTION

a. 110
b. 512
c. 115
d. 510
e. X
f. 611/118
g. ✓
h. ✓
i. 125
j. 520

k. ✓

EB–18 Identifying transactions in the accounts receivable subsidiary ledger

Learning Objective 2

A customer account in the accounts receivable subsidiary ledger of Leger Old Company follows:

JOSH WILLOW					
				Balance	
Date	Post. Ref.	Debit	Credit	Debit	Credit
Nov. 1				400	
9	S.5	1,180		1,580	
18	J.8		190	1,390	
30	CR.9		700	690	

Describe the three posted transactions.

SOLUTION

Date	Description
Nov. 9	From the sales journal, Leger Old Company recorded a sale on account to Josh Willow
18	From the general journal, Leger Old Company issued a credit memo to Josh Willow. Josh Willow returned some goods or received an adjustment on goods purchased.
30	From the cash receipts journal, Leger Old Company received a cash payment from Josh Willow

EB–19 Recording transactions—purchases journal

Learning Objective 3

Accounts Payable CR column total $4,800

Apr. 2	Purchased merchandise inventory on credit terms of 3/10, n/60 from Vanderbilt Co., $2,400.
5	Issued check no. 820 to purchase equipment for cash, $3,600.
11	Purchased merchandise inventory for cash, $750, issuing check no. 821.
12	Issued check no. 822 to pay Vanderbilt Co. net amount owed from Apr. 2.
19	Purchased office supplies on account from Downing Supplies, $500. Terms were n/EOM.
24	Purchased merchandise inventory on credit terms of net 30 from Wilmington Sales, $1,900.
28	Issued check no. 823 to pay for insurance coverage, debiting Prepaid Insurance for $1,000.
29	Issued check no. 824 to pay rent for the month, $1,250.

Requirements

1. Prepare headings for a purchases journal. Journalize the transactions that should be recorded in the purchases journal. The company uses the perpetual inventory system.

2. Total each column of the purchases journal.

EB–19, cont.

SOLUTION

Requirements 1 and 2

Purchases Journal									**Page 1**
							Other Accounts DR		
Date	**Vendor Account Credited**	**Terms**	**Post. Ref.**	**Accounts Payable CR**	**Merchandise Inventory DR**	**Office Supplies DR**	**Account Title**	**Post. Ref.**	**Amount**
Apr. 2	Vanderbilt Co.	3/10, n/60		2,400	2,400				
19	Downing Supplies	n/EOM		500		500			
24	Wilmington Sales	n/30		1,900	1,900				
30	Totals			4,800	4,300	500			

EB–20 Recording transactions—cash payments journal

Learning Objective 3

Cash CR column total $8,928

Refer to information in Exercise EB-19.

Requirements

1. Prepare headings for a cash payments journal. Journalize the transactions that should be recorded in the cash payments journal.
2. Total each column of the cash payments journal.

SOLUTION

Requirement 1 and 2

Cash Payments Journal							**Page 1**
Date	**Ck. No.**	**Account Debited**	**Post. Ref.**	**Other Accounts DR**	**Accounts Payable DR**	**Merchandise Inventory CR**	**Cash CR**
Apr. 5	820	Equipment		3,600			3,600
11	821	Merchandise Inventory		750			750
12	822	Vanderbilt Co.*			2,400	72	2,328
28	823	Prepaid Insurance		1,000			1,000
29	824	Rent Expense		1,250			1,250
30		Totals		6,600	2,400	72	8,928

*$2,400 × 3% = $72; $2,400 – $72 = $2,328

EB–21 Posting from the purchases journal; balancing the ledgers

Learning Objective 3

Merchandise Inventory DR column total $2,300

The purchases journal of Southeastern Publishing Company follows:

Purchases Journal									Page 7
							Other Accounts DR		
Date	Vendor Account Credited	Terms	Post. Ref.	Accounts Payable CR	Merchandise Inventory DR	Office Supplies DR	Account Title	Post. Ref.	Amount
2018									
Sep. 2	Leap Tech	n/30		830	830				
5	Jell Supply	n/30		155		155			
13	Leap Tech	5/10, n/30		1,470	1,470				
26	Fallon Equipment	n/30		880			Equipment		880
Sep. 30	Total								

Requirements

1. Total each column of the purchases journal.
2. Open four-column ledger accounts for Merchandise Inventory (118), Office Supplies (120), Equipment (150), and Accounts Payable (211). Post to these accounts from the purchases journal. Use dates and posting references in the accounts.
3. Open four-column accounts in the accounts payable subsidiary ledger for Fallon Equipment, Jell Supply, and Leap Tech. Post from the purchases journal. Use dates and posting references in the ledger accounts.
4. Balance the Accounts Payable control account in the general ledger with the total of the ending balances in the accounts payable subsidiary ledger.

EB–21, cont.

SOLUTION

Requirements 1, 2, and 3

Purchases Journal									**Page 7**
				Accounts	**Merchandise**	**Office**	**Other Accounts DR**		
Date	**Vendor Account Credited**	**Terms**	**Post. Ref.**	**Payable CR**	**Inventory DR**	**Supplies DR**	**Account Title**	**Post. Ref.**	**Amount**
2018									
Sep. 2	Leap Tech	n/30	✓	830	830				
5	Jell Supply	n/30	✓	155		155			
13	Leap Tech	5/10, n/30	✓	1,470	1,470				
26	Fallon Equipment	n/30	✓	880			Equipment	150	880
30	Totals			3,335	2,300	155			880
				(211)	(118)	(120)			(X)

Merchandise Inventory					**No. 118**
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Sep. 30	P.7	2,300		2,300	

Office Supplies					**No. 120**
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Sep. 30	P.7	155		155	

EB–21, cont.
Requirements 1, 2, and 3, cont.

Equipment					No. 150
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Sep. 26	P.7	880		880	

Accounts Payable					No. 211
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Sep. 30	P.7		3,335		3,335

Accounts Payable—Fallon Equipment					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Sep. 26	P.7		880		880

Accounts Payable—Jell Supply					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Sep. 5	P.7		155		155

EB–21, cont.
Requirements 1, 2, and 3, cont.

Accounts Payable—Leap Tech					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Sep. 2	P.7		830		830
13	P.7		1,470		2,300

Requirement 4

Vendor	Balance
Fallon Equipment	$ 880
Jell Supply	155
Leap Tech	2,300
Total	$ 3,335

The total of the vendor balances in the accounts payable subsidiary ledger agrees with the balance in Accounts Payable in the general ledger: $3,335.

EB–22 Identifying transactions in the accounts payable subsidiary ledger

Learning Objective 3

A vendor account in the accounts payable subsidiary ledger of Frost Company follows.

LARRY CARPENTER					
				Balance	
Date	Post. Ref.	Debit	Credit	Debit	Credit
Dec. 1					1,800
12	P.4		2,340		4,140
20	J.10	200			3,940
29	CP.6	1,500			2,440

Describe the three posted transactions.

SOLUTION

Date	Description
Dec. 12	From the purchases journal, Frost Company made a purchase on account from Larry Carpenter.
20	From the general journal, Frost Company issued a debit memo to Larry Carpenter for returned goods or an adjustment on damaged goods.
29	From the cash payments journal, Frost Company made a cash payment to Larry Carpenter.

EB–23 Identifying errors in special journals

Learning Objectives 2, 3

Transaction	**Recording**
a. Henry Associates paid $490 on account for an earlier purchase of merchandise inventory.	Purchases journal
b. Recorded depreciation expense for the month.	Cash payments journal
c. Collected interest revenue.	Cash receipts journal
d. Sold merchandise inventory on account.	Cash receipts journal
e. Issued check no. 535 for purchase of merchandise inventory.	Purchases journal
f. Returned damaged inventory that was purchased on account.	Purchases journal
g. Sold merchandise inventory for cash.	Sales journal

For each transaction listed, identify the recording error and indicate the journal that should have been used.

SOLUTION

a. Cash payments are recorded in the **cash payments** journal.
b. Adjusting entries are recorded in the **general** journal.
c. Correct as recorded.
d. Sales on account are recorded in the **sales** journal.
e. Cash payments (by check or currency) are recorded in the **cash payments** journal.
f. Debit memos are recorded in the **general** journal.
g. Cash sales are recorded in the **cash receipts** journal.

Problems (Group A)

All problems can be completed manually or by using either MyAccountingLab General Ledger or QuickBooks.

PB–24A Using the sales, cash receipts, and general journals

Learning Objectives 2, 3

Cash Receipts Journal, Accounts Receivable CR column total $11,600

Assume Sparkling Springs Glass Company uses the perpetual inventory system. The general ledger of Sparkling Springs Glass Company includes the following selected accounts, along with their account numbers:

Number	Account	Number	Account
11	Cash	18	Equipment
12	Accounts Receivable	19	Land
13	Notes Receivable	41	Sales Revenue
15	Merchandise Inventory	51	Cost of Goods Sold
16	Office Supplies		

Sales and cash receipts transactions in July were as follows:

Jul. 2	Sold merchandise inventory on credit, terms n/30, to Intel, Inc., $1,500 (cost, $200).
3	Sold office supplies to an employee at cost, $80, receiving cash.
7	Cash sales for the week totaled $2,300 (cost, $1,500).
9	Sold merchandise inventory on account, terms n/30, to A. B. Miller, $7,700 (cost, $5,200).
10	Sold land that cost $10,000 for cash of the same amount.
11	Sold merchandise inventory on account, terms n/30, to Speedy Electric, $5,400 (cost, $3,350).
12	Received cash from Intel in full settlement of its account receivable from July 2.
14	Cash sales for the week were $2,600 (cost, $1,700).
15	Sold merchandise inventory on credit, terms n/30, to the partnership of William & Bill, $3,400 (cost, $2,400).
20	Sold merchandise inventory on account, terms n/30, to Speedy Electric, $500 (cost, $250).
21	Cash sales for the week were $980 (cost, $640).
22	Received $4,000 cash from A. B. Miller in partial settlement of his account receivable.
25	Received cash from William & Bill for its account receivable from July 15.
25	Sold merchandise inventory on account, terms n/30, to Oscar Co., $1,520 (cost, $1,000).
27	Collected $5,000 on a note receivable. There was no interest earned.
28	Cash sales for the week totaled $3,710 (cost, $2,450).
29	Sold merchandise inventory on account, terms n/30, to R. O. Bart, $200 (cost, $100).
31	Received $2,700 cash on account from A. B. Miller.

PB–24A, cont.

Requirements

1. Use the appropriate journal to record the preceding transactions in a sales journal (omit the Invoice No. column) and a cash receipts journal (omit the Sales Discounts Forfeited column).
2. Total each column of the sales journal and the cash receipts journal. Show that total debits equal total credits.
3. Show how postings would be made by writing the account numbers and check marks in the appropriate places in the journals.

SOLUTION

Requirements 1, 2 and 3

Sales Journal					**Page 1**
				Accounts Receivable DR	**Cost of Goods Sold DR**
Date	**Invoice No.**	**Customer Account Debited**	**Post. Ref.**	**Sales Revenue CR**	**Merchandise Inventory CR**
Jul. 2		Intel, Inc.	✓	1,500	200
9		A. B. Miller	✓	7,700	5,200
11		Speedy Electric	✓	5,400	3,350
15		William & Bill	✓	3,400	2,400
20		Speedy Electric	✓	500	250
25		Oscar Co.	✓	1,520	1,000
29		R. O. Bart	✓	200	100
31		Totals		20,220	12,500
				(12/41)	(51/15)

Debits: Accounts Receivable + Cost of Goods Sold
$20,220 + $12,500 = **$32,720**

Credits: Sales Revenue + Merchandise Inventory
$20,220 + $12,500 = **$32,720**

PB–24A, cont.
Requirements 1, 2, and 3, cont.

Cash Receipts Journal							**Page 1**
							Cost of Goods Sold DR
Date	**Account Credited**	**Post. Ref.**	**Cash DR**	**Accounts Receivable CR**	**Sales Revenue CR**	**Other Accounts CR**	**Merchandise Inventory CR**
Jul. 3	Office Supplies	16	80			80	
7			2,300		2,300		1,500
10	Land	19	10,000			10,000	
12	Intel, Inc.	✓	1,500	1,500			
14			2,600		2,600		1,700
21			980		980		640
22	A. B. Miller	✓	4,000	4,000			
25	William & Bill	✓	3,400	3,400			
27	Notes Receivable	13	5,000			5,000	
28			3,710		3,710		2,450
31	A. B. Miller	✓	2,700	2,700			
	Totals		36,270	11,600	9,590	15,080	6,290
			(11)	(12)	(41)	(X)	(51/15)

Debits: Cash + Cost of Goods Sold
$36,270 + $6,290 = **$42,560**
Credits: Accounts Receivable + Sales Revenue + Other Accounts + Merchandise Inventory
$11,600 + $9,590 + $15,080 + $6,290 = **$42,560**

PB–25A Using the purchases, cash payments, and general journals

Learning Objective 3

Purchases Journal, Accounts Payable CR column total $19,540

The general ledger of Shiny Lake Golf Shop includes the following selected accounts, along with their account numbers:

Number	Account	Number	Account
111	Cash	181	Equipment
131	Merchandise Inventory	211	Accounts Payable
161	Prepaid Insurance	564	Rent Expense
171	Office Supplies	583	Utilities Expense

Transactions in December that affected purchases and cash payments follow:

Dec. 2	Purchased merchandise inventory on credit from Tomas, $4,500. Terms were 1/10, n/30.
3	Paid monthly rent, debiting Rent Expense for $2,300.
5	Purchased office supplies on credit terms of 1/10, n/30 from Right Supply, $440.
8	Received and paid electricity utility bill, $580.
9	Purchased equipment on account from Ace Equipment, $6,600. Payment terms were n/30.
10	Returned the equipment to Ace Equipment. It was damaged.
11	Paid Tomas the amount owed on the purchase of December 2.
12	Purchased merchandise inventory on account from Callahan Golf, $4,000. Terms were 3/10, n/30.
13	Purchased merchandise inventory for cash, $600.
14	Paid a semiannual insurance premium, debiting Prepaid Insurance, $1,400.
16	Paid its account payable to Right Supply from December 5.
18	Received and paid gas and water utility bills, $200.
21	Purchased merchandise inventory on credit terms of 2/10, n/45 from Dormer, Inc., $3,400.
21	Paid its account payable to Callahan Golf from December 12.
22	Purchased office supplies on account from Office World, Inc., $600. Terms were n/30.
26	Returned to Dormer, Inc. $1,000 of the merchandise inventory purchased on December 21.
31	Paid Dormer, Inc. the net amount owed from December 21 less the return on December 26.

PB–25A, cont.

Requirements

1. Shiny Lake Golf Shop records purchase returns in the general journal. Use the appropriate journal to record the transactions in a purchases journal, a cash payments journal (omit the Check No. column), and a general journal. The company uses the perpetual inventory system.
2. Total each column of the special journals. Show that total debits equal total credits in each special journal.
3. Show how postings would be made from the journals by writing the account numbers and check marks in the appropriate places in the journals.

SOLUTION

Requirements 1, 2 and 3

Purchases Journal									**Page 1**
							Other Accounts DR		
Date	**Vendor Account Credited**	**Terms**	**Post. Ref.**	**Accounts Payable CR**	**Merchandise Inventory DR**	**Office Supplies DR**	**Account Title**	**Post. Ref.**	**Amount**
Dec. 2	Tomas	1/10, n/30	✓	4,500	4,500				
5	Right Supply	1/10, n/30	✓	440		440			
9	Ace Equipment	n/30	✓	6,600			Equipment	181	6,600
12	Callahan Golf	3/10, n/30	✓	4,000	4,000				
21	Dormer, Inc.	2/10, n/45	✓	3,400	3,400				
22	Office World, Inc.	n/30	✓	600		600			
31	Totals			19,540	11,900	1,040			6,600
				(211)	(131)	(171)			(X)

Debits: Merchandise Inventory + Office Supplies + Other Accounts
$11,900 + $1,040 + $6,600 = **$19,540**

Credits: Accounts Payable
$19,540

PB–25A, cont.
Requirements 1, 2, and 3, cont.

Cash Payments Journal							Page 1
Date	**Ck. No.**	**Account Debited**	**Post. Ref.**	**Other Accounts DR**	**Accounts Payable DR**	**Merchandise Inventory CR**	**Cash CR**
Dec. 3		Rent Expense	564	2,300			2,300
8		Utilities Expense	583	580			580
11		Tomas[1]	✓		4,500	45	4,455
13		Merchandise Inventory	131	600			600
14		Prepaid Insurance	161	1,400			1,400
16		Right Supply[2]	✓		440		440
18		Utilities Expense	583	200			200
21		Callahan Golf[3]	✓		4,000	120	3,880
31		Dormer, Inc.[4]	✓		2,400	48	2,352
31		Totals		5,080	11,340	213	16,207
				(X)	(211)	(131)	(111)

[1]$4,500 × 1% = $45; $4,500 – $45 = $4,455
[2]Did not make payment within the discount period
[3]$4,000 × 3% = $120; $4,000 – $120 = $3,880
[4]$3,400 – $1,000 = $2,400; $2,400 × 2% = $48; $2,400 − $48 = $2,352

Debits: Other Accounts + Accounts Payable
$5,080 + $11,340 = **$16,420**

Credits: Merchandise Inventory + Cash
$213 + $16,207 = **$16,420**

PB–25A, cont.
Requirements 1, 2 and 3, cont.

Date	Accounts and Explanation	Post. Ref.	Debit	Credit
Dec. 10	Accounts Payable—Ace Equipment	211/✓	6,600	
	Equipment	181		6,600
	Debit memo issued for returned equipment.			
26	Accounts Payable—Dormer, Inc.	211/✓	1,000	
	Merchandise Inventory	131		1,000
	Debit memo issued for purchase return.			

PB–26A Using all journals, posting, and balancing the ledgers

Learning Objectives 2, 3

Trial balance, total debits $48,600

Tulsa Computer Security uses the perpetual inventory system and makes all credit sales on terms of n/30. Tulsa completed the following transactions during May:

May 2	Issued invoice no. 913 for sale on account to K. D. King, $2,200 (cost, $1,500).
3	Purchased merchandise inventory on credit terms of 3/10, n/60 from Henderson Co., $2,900.
5	Sold merchandise inventory for cash, $1,800 (cost, $350).
5	Issued check no. 532 to purchase furniture for cash, $2,950.
8	Collected interest revenue of $1,350.
9	Issued invoice no. 914 for sale on account to Berkner Co., $5,700 (cost, $2,000).
10	Purchased merchandise inventory for cash, $1,000, issuing check no. 533.
12	Received cash from K. D. King in full settlement of her account receivable from the sale on May 2.
13	Issued check no. 534 to pay Henderson Co. the net amount owed from May 3. Round to the nearest dollar.
13	Purchased office supplies on account from Magyar, Inc., $500. Terms were n/EOM.
15	Sold merchandise inventory on account to M. O. Small, issuing invoice no. 915 for $850 (cost, $400).
18	Issued invoice no. 916 for credit sale to K. D. King, $300 (cost, $150).
19	Received cash from Berkner Co. in full settlement of its account receivable from May 9.
20	Purchased merchandise inventory on credit terms of n/30 from Silva Distributing, $2,100.
22	Purchased furniture on credit terms of 3/10, n/60 from Henderson Co., $500.
22	Issued check no. 535 to pay for insurance coverage, debiting Prepaid Insurance for $1,400.
24	Sold office supplies to an employee for cash of $125, which was Tulsa's cost.
25	Received bill and issued check no. 536 to pay utilities, $550.
28	Purchased merchandise inventory on credit terms of 2/10, n/30 from Magyar, Inc., $575.
29	Returned damaged merchandise inventory to Magyar, Inc., issuing a debit memo for $575.
29	Sold merchandise inventory on account to Berkner Co., issuing invoice no. 917 for $2,400 (cost, $1,400).
30	Issued check no. 537 to pay Magyar, Inc. in full for May 13 purchase.
31	Received cash in full from K. D. King on credit sale of May 18.
31	Issued check no. 538 to pay monthly salaries of $2,250.

PB–26A, cont.

Requirements

1. Open four-column general ledger accounts using Tulsa's account numbers and balances as of May 1, 2018, that follow. All accounts have normal balances.

Number	Account	Bal.
111	Cash	$ 15,000
112	Accounts Receivable	1,700
114	Merchandise Inventory	7,000
116	Office Supplies	600
117	Prepaid Insurance	0
151	Furniture	2,200
211	Accounts Payable	900
311	Common Stock	10,000
314	Retained Earnings	11,400
411	Sales Revenue	7,800
419	Interest Revenue	1,300
511	Cost of Goods Sold	2,800
531	Salaries Expense	1,900
541	Utilities Expense	200

2. Open four-column accounts in the subsidiary ledgers with beginning balances as of May 1, if any. Accounts receivable subsidiary ledger—Balakrishnan Co., $1,700; Berkner Co., $0; M. O. Small, $0; and K. D. King, $0. Accounts payable subsidiary ledger—Henderson Co., $0; Magyar, Inc., $0; Silva Distributing, $0; and White Co., $900.
3. Enter the transactions in a sales journal (page 7), a cash receipts journal (page 5, omit Sales Discounts Forfeited column), a purchases journal (page 10), a cash payments journal (page 8), and a general journal (page 6), as appropriate.
4. Post daily to the accounts receivable subsidiary ledger and to the accounts payable subsidiary ledger.
5. Total each column of the special journals. Show that total debits equal total credits in each special journal. On May 31, post to the general ledger.
6. Prepare a trial balance as of May 31, 2018, to verify the equality of the general ledger. Balance the total of the customer account ending balances in the accounts receivable subsidiary ledger against Accounts Receivable in the general ledger. Do the same for the accounts payable subsidiary ledger and Accounts Payable in the general ledger.

PB–26A, cont.

SOLUTION

Requirements 1 and 5

Cash					**No. 111**
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.				15,000	
May 31	CR.5	11,475		26,475	
31	CP.8		11,463	15,012	

Accounts Receivable					**No. 112**
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.				1,700	
May 31	S.7	11,450		13,150	
31	CR.5		8,200	4,950	

PB–26A, cont.
Requirements 1 and 5, cont.

Merchandise Inventory					No. 114
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				7,000	
May 10	CP.8	1,000		8,000	
29	J.6		575	7,425	
31	S.7		5,450	1,975	
31	CR.5		350	1,625	
31	P.10	5,575		7,200	
31	CP.8		87	7,113	

Office Supplies					No. 116
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				600	
May 24	CR.5		125	475	
31	P.10	500		975	

Prepaid Insurance					No. 117
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				0	
May 22	CP.8	1,400		1,400	

Furniture					No. 151
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				2,200	
May 5	CP.8	2,950		5,150	
22	P.10	500		5,650	

PB–26A, cont.
Requirements 1 and 5, cont.

Accounts Payable					No. 211
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					900
May 29	J.6	575			325
31	P.10		6,575		6,900
31	CP.8	3,400			3,500

Common Stock					No. 311
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					10,000

Retained Earnings					No. 314
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					11,400

Sales Revenue					No. 411
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					7,800
May 31	S.7		11,450		19,250
31	CR.5		1,800		21,050

PB–26A, cont.
Requirements 1 and 5, cont.

Interest Revenue					No. 419
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					1,300
May 8	CR.5		1,350		2,650

Cost of Goods Sold					No. 511
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				2,800	
May 31	S.7	5,450		8,250	
31	CR.5	350		8,600	

Salaries Expense					No. 531
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				1,900	
May 31	CP.8	2,250		4,150	

Utilities Expense					No. 541
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				200	
May 25	CP.8	550		750	

PB-26A, cont.
Requirements 2 and 4

Accounts Receivable—Balakrishnan Co.					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				1,700	

Accounts Receivable—Berkner Co.					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				0	
May 9	S.7	5,700		5,700	
19	CR.5		5,700	0	
29	S.7	2,400		2,400	

Accounts Receivable—K. D. King					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				0	
May 2	S.7	2,200		2,200	
12	CR.5		2,200	0	
18	S.7	300		300	
31	CR.5		300	0	

Accounts Receivable—M. O. Small					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				0	
May 15	S.7	850		850	

Accounts Payable—Henderson Co.					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					0
May 3	P.10		2,900		2,900
13	CP.8	2,900			0
22	P.10		500		500

PB–26A, cont.
Requirements 2 and 4, cont.

Accounts Payable—Magyar, Inc.					
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.					0
May 13	P.10		500		500
28	P.10		575		1,075
29	J.6	575			500
30	CP.8	500			0

Accounts Payable—Silva Distributing					
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.					0
May 20	P.10		2,100		2,100

Accounts Payable—White Co.					
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.					900

PB–26A, cont.
Requirements 3, 4, 5 and 6

Sales Journal					**Page 7**
				Accounts Receivable DR	**Cost of Goods Sold DR**
Date	**Invoice No.**	**Customer Account Debited**	**Post. Ref.**	**Sales Revenue CR**	**Merchandise Inventory CR**
2018					
May 2	913	K. D. King	✓	2,200	1,500
9	914	Berkner Co.	✓	5,700	2,000
15	915	M. O. Small	✓	850	400
18	916	K. D. King	✓	300	150
29	917	Berkner Co.	✓	2,400	1,400
31		Totals		11,450	5,450
				(112/411)	(511/114)

Debits: Accounts Receivable + Cost of Goods Sold
$11,450 + $5,450 = **$16,900**
Credits: Sales Revenue + Merchandise Inventory
$11,450 + $5,450 = **$16,900**

PB–26A, cont.
Requirements 3, 4, 5 and 6, cont.

Cash Receipts Journal							**Page 5**
							Cost of Goods Sold DR
Date	**Account Credited**	**Post. Ref.**	**Cash DR**	**Accounts Receivable CR**	**Sales Revenue CR**	**Other Accounts CR**	**Merchandise Inventory CR**
2018							
May 5			1,800		1,800		350
8	Interest Revenue	419	1,350			1,350	
12	K. D. King	✓	2,200	2,200			
19	Berkner Co.	✓	5,700	5,700			
24	Office Supplies	116	125			125	
31	K. D. King	✓	300	300			
31	Totals		11,475	8,200	1,800	1,475	350
			(111)	(112)	(411)	(X)	(511/114)

Debits: Cash + Cost of Goods Sold
$11,475 + $350 = **$11,825**

Credits: Accounts Receivable + Sales Revenue + Other Accounts + Merchandise Inventory
$8,200 + $1,800 + $1,475 + $350 = **$11,825**

PB–26A, cont.
Requirements 3, 4, 5 and 6, cont.

Purchases Journal									**Page 10**
							Other Accounts DR		
Date	**Vendor Account Credited**	**Terms**	**Post. Ref.**	**Accounts Payable CR**	**Merchandise Inventory DR**	**Office Supplies DR**	**Account Title**	**Post. Ref.**	**Amount**
2018									
May 3	Henderson Co.	3/10, n/60	✓	2,900	2,900				
13	Magyar, Inc.	n/EOM	✓	500		500			
20	Silva Distributing	n/30	✓	2,100	2,100				
22	Henderson Co.	3/10, n/60	✓	500			Furniture	151	500
28	Magyar, Inc.	2/10, n/30	✓	575	575				
31	Totals			6,575	5,575	500			500
				(211)	(114)	(116)			(X)

Debits: Merchandise Inventory + Office Supplies + Other Accounts
$5,575 + $500 + $500 = **$6,575**

Credits: Accounts Payable
$6,575

PB–26A, cont.
Requirements 3, 4, 5 and 6, cont.

Cash Payments Journal							**Page 8**
Date	**Ck. No.**	**Account Debited**	**Post. Ref.**	**Other Accounts DR**	**Accounts Payable DR**	**Merchandise Inventory CR**	**Cash CR**
2018							
May 5	532	Furniture	151	2,950			2,950
10	533	Merchandise Inventory	114	1,000			1,000
13	534	Henderson Co.[1]	✓		2,900	87	2,813
22	535	Prepaid Insurance	117	1,400			1,400
25	536	Utilities Expense	541	550			550
30	537	Magyar, Inc.	✓		500		500
31	538	Salaries Expense	531	2,250			2,250
31		Totals		8,150	3,400	87	11,463
				(X)	(211)	(114)	(111)

[1]$2,900 × 3% = $87; $2,900 – $87 = $2,813

Debits: Other Accounts + Accounts Payable
$8,150 + $3,400 = **$11,550**

Credits: Merchandise Inventory + Cash
$87 + $11,463 = **$11,550**

PB–26A, cont.
Requirements 3, 4, 5 and 6, cont.

General Journal				Page 6
Date	**Accounts and Explanation**	**Post. Ref.**	**Debit**	**Credit**
May 29	Accounts Payable—Magyar, Inc.	211/✓	575	
	Merchandise Inventory	114		575
	Issued debit memo for purchase return.			

Requirement 6

TULSA COMPUTER SECURITY
Trial Balance
May 31, 2018

Acct. No.	Account Name	Debit	Credit
111	Cash	$ 15,012	
112	Accounts Receivable	4,950	
114	Merchandise Inventory	7,113	
116	Office Supplies	975	
117	Prepaid Insurance	1,400	
151	Furniture	5,650	
211	Accounts Payable		$ 3,500
311	Common Stock		10,000
314	Retained Earnings		11,400
411	Sales Revenue		21,050
419	Interest Revenue		2,650
511	Cost of Goods Sold	8,600	
531	Salaries Expense	4,150	
541	Utilities Expense	750	
	Totals	$ 48,600	$ 48,600

PB–26A, cont.
Requirement 6, cont.

Accounts Receivable Subsidiary Ledger

Customer	Balance
Balakrishnan Co.	$ 1,700
Berkner Co.	2,400
K. D. King	0
M. O. Small	850
Total	$ 4,950

The total of the customer balances in the accounts receivable subsidiary ledger agrees with the balance in Accounts Receivable in the general ledger: $4,950.

Accounts Payable Subsidiary Ledger

Vendor	Balance
Henderson Co.	$ 500
Magyar, Inc.	0
Silva Distributing	2,100
White Co.	900
Total	$ 3,500

The total of the vendor balances in the accounts payable subsidiary ledger agrees with the balance in Accounts Payable in the general ledger: $3,500.

Problems (Group B)

All problems can be completed manually or by using either MyAccountingLab General Ledger or QuickBooks.

PB–27B Using the sales, cash receipts, and general journals

Learning Objectives 2, 3

Cash Receipts Journal, Accounts Receivable CR column total $11,800

Assume Peaceful Spring Company uses the perpetual inventory system. The general ledger of Peaceful Springs Company includes the following selected accounts, along with their account numbers:

Number	Account	Number	Account
11	Cash	18	Equipment
12	Accounts Receivable	19	Land
13	Notes Receivable	41	Sales Revenue
15	Merchandise Inventory	51	Cost of Goods Sold
16	Office Supplies		

Sales and cash receipts transactions in November were as follows:

Nov. 2	Sold merchandise inventory on credit, terms n/30, to Intelysis, Inc., $2,200 (cost, $400).
6	Sold office supplies to an employee at cost, $85, receiving cash.
6	Cash sales for the week totaled $2,400 (cost, $1,400).
8	Sold merchandise inventory on account, terms n/30, to A. Z. Morris, $7,500 (cost, $5,000).
9	Sold land that cost $9,000 for cash of the same amount.
11	Sold merchandise inventory on account, terms n/30, to Sloan Electric, $5,000 (cost, $3,450).
11	Received cash from Intelysis in full settlement of its account receivable from November 2.
13	Cash sales for the week were $2,200 (cost, $1,750).
15	Sold merchandise inventory on credit, terms n/30, to West and Michael, $3,000 (cost, $2,200).
19	Sold merchandise inventory on account, terms n/30, to Sloan Electric, $700 (cost, $200).
20	Cash sales for the week were $940 (cost, $640).
21	Received $4,400 cash from A. Z. Morris in partial settlement of its account receivable.
22	Received cash from West and Michael for its account receivable from November 15.
22	Sold merchandise inventory on account, terms n/30, to Olivia Co., $1,510 (cost, $980).
25	Collected $5,800 on a note receivable. There was no interest earned.
27	Cash sales for the week totaled $3,780 (cost, $2,430).
27	Sold merchandise inventory on account, terms n/30, to R. A. Brown, $230 (cost, $110).
30	Received $2,200 cash on account from A. Z. Morris.

PB–27B, cont.

Requirements

1. Use the appropriate journal to record the preceding transactions in a sales journal (omit the Invoice No. column) and a cash receipts journal (omit the Sales Discounts Forfeited column).
2. Total each column of the sales journal and the cash receipts journal. Determine that total debits equal total credits.
3. Show how postings would be made from the journals by writing the account numbers and check marks in the appropriate places in the journals.

SOLUTION

Requirements 1, 2 and 3

Sales Journal					**Page 1**
				Accounts Receivable DR	**Cost of Goods Sold DR**
Date	**Invoice No.**	**Customer Account Debited**	**Post. Ref.**	**Sales Revenue CR**	**Merchandise Inventory CR**
Nov. 2		Intelysis, Inc.	✓	2,200	400
8		A. Z. Morris	✓	7,500	5,000
11		Sloan Electric	✓	5,000	3,450
15		West and Michael	✓	3,000	2,200
19		Sloan Electric	✓	700	200
22		Olivia Co.	✓	1,510	980
27		R. A. Brown	✓	230	110
30		Totals		20,140	12,340
				(12/41)	(51/15)

Debits: Accounts Receivable + Cost of Goods Sold
$20,140 + $12,340 = **$32,480**

Credits: Sales Revenue + Merchandise Inventory
$20,140 + $12,340 = **$32,480**

PB–27B, cont.
Requirements 1, 2 and 3, cont.

Cash Receipts Journal							**Page 1**
							Cost of Goods Sold DR
Date	**Account Credited**	**Post. Ref.**	**Cash DR**	**Accounts Receivable CR**	**Sales Revenue CR**	**Other Accounts CR**	**Merchandise Inventory CR**
Nov. 6	Office Supplies	16	85			85	
6			2,400		2,400		1,400
9	Land	19	9,000			9,000	
11	Intelysis, Inc.	✓	2,200	2,200			
13			2,200		2,200		1,750
20			940		940		640
21	A. Z. Morris	✓	4,400	4,400			
22	West and Michael	✓	3,000	3,000			
25	Notes Receivable	13	5,800			5,800	
27			3,780		3,780		2,430
30	A. Z. Morris	✓	2,200	2,200			
30	Totals		36,005	11,800	9,320	14,885	6,220
			(11)	(12)	(41)	(X)	(51/15)

Debits: Cash + Cost of Goods Sold
$36,005 + $6,220 = **$42,225**
Credits: Accounts Receivable + Sales Revenue + Other Accounts + Merchandise Inventory
$11,800 + $9,320 + $14,885 + $6,220 = **$42,225**

PB–28B Using the purchases, cash payments, and general journals

Learning Objective 3

Purchases Journal, Accounts Payable CR column total $19,470

The general ledger of Finnish Lake Golf Shop includes the following selected accounts, along with their account numbers:

Number	Account	Number	Account
111	Cash	181	Equipment
131	Merchandise Inventory	211	Accounts Payable
161	Prepaid Insurance	564	Rent Expense
171	Office Supplies	583	Utilities Expense

Transactions in December that affected purchases and cash payments were as follows:

Dec. 2	Purchased merchandise inventory on credit from Tighe, $4,100. Terms were 3/10, n/30.
3	Paid monthly rent, debiting Rent Expense for $2,200.
5	Purchased office supplies on credit terms of 3/10, n/30 from Rapid Supply, $470.
8	Received and paid electricity utility bill, $510.
9	Purchased equipment on account from A-1 Equipment, $6,900. Payment terms were net 30.
10	Returned the equipment to A-1 Equipment. It was damaged.
11	Paid Tighe the amount owed on the purchase of December 2.
12	Purchased merchandise inventory on account from Crystal Golf, $4,900. Terms were 1/10, n/30.
13	Purchased merchandise inventory for cash, $660.
14	Paid a semiannual insurance premium, debiting Prepaid Insurance, $1,200.
16	Paid its account payable to Rapid Supply from December 5.
18	Received and paid gas and water utility bills, $500.
21	Purchased merchandise inventory on credit terms of 1/10, n/45 from Devin, Inc., $3,000.
21	Paid its account payable to Crystal Golf from December 12.
22	Purchased office supplies on account from Office Stuff, Inc., $100. Terms were n/30.
26	Returned to Devin, Inc. $1,000 of the merchandise inventory purchased on December 21.
31	Paid Devin, Inc. the net amount owed from December 21 less the return on December 26.

PB–28B, cont.

Requirements

1. Use the appropriate journal to record the preceding transactions in a purchases journal, a cash payments journal (omit the Check No. column), and a general journal. Finnish Lake Golf Shop records purchase returns in the general journal. The company uses the perpetual inventory system.
2. Total each column of the special journals. Show that total debits equal total credits in each special journal.
3. Show how postings would be made from the journals by writing the account numbers and check marks in the appropriate places in the journals.

SOLUTION

Requirements 1, 2 and 3

Purchases Journal									**Page 1**
							Other Accounts DR		
Date	**Vendor Account Credited**	**Terms**	**Post. Ref.**	**Accounts Payable CR**	**Merchandise Inventory DR**	**Office Supplies DR**	**Account Title**	**Post. Ref.**	**Amount**
Dec. 2	Tighe	3/10, n/30	✓	4,100	4,100				
5	Rapid Supply	3/10, n/30	✓	470		470			
9	A-1 Equpment	n/30	✓	6,900			Equipment	181	6,900
12	Crystal Golf	1/10, n/30	✓	4,900	4,900				
21	Devin, Inc.	1/10, n/45	✓	3,000	3,000				
22	Office Stuff, Inc.	n/30	✓	100		100			
31	Totals			19,470	12,000	570			6,900
				(211)	(131)	(171)			(X)

Debits: Merchandise Inventory + Office Supplies + Other Accounts
$12,000 + $570 + $6,900 = **$19,470**

Credits: Accounts Payable
$19,470

PB–28B, cont.
Requirements 1, 2 and 3, cont.

Cash Payments Journal							**Page 1**
Date	**Ck. No.**	**Account Debited**	**Post. Ref.**	**Other Accounts DR**	**Accounts Payable DR**	**Merchandise Inventory CR**	**Cash CR**
Dec. 3		Rent Expense	564	2,200			2,200
8		Utilities Expense	583	510			510
11		Tighe[1]	✓		4,100	123	3,977
13		Merchandise Inventory	131	660			660
14		Prepaid Insurance	161	1,200			1,200
16		Rapid Supply[2]	✓		470		470
18		Utilities Expense	583	500			500
21		Crystal Golf[3]	✓		4,900	49	4,851
31		Devin, Inc.[4]	✓		2,000	20	1,980
31		Totals		5,070	11,470	192	16,348
				(X)	(211)	(131)	(111)

[1]$4,100 × 3% = $123; $4,100 – $123 = $3,977
[2]Did not make payment within the discount period
[3]$4,900 × 1% = $49; $4,900 – $49 = $4,851
[4]$3,000 – $1,000 = $2,000; $2,000 × 1% = $20; $2,000 – $20 = $1,980

Debits: Other Accounts + Accounts Payable
$5,070 + $11,470 = **$16,540**

Credits: Merchandise Inventory + Cash
$192 + $16,348 = **$16,540**

PB–28B, cont.
Requirements 1, 2 and 3, cont.

Date	Accounts and Explanation	Post. Ref.	Debit	Credit
Dec. 10	Accounts Payable—A-1 Equipment	211/✓	6,900	
	Equipment	181		6,900
	Debit memo issued for returned equipment.			
26	Accounts Payable—Devin, Inc.	211/✓	1,000	
	Merchandise Inventory	131		1,000
	Debit memo issued for purchase return.			

PB–29B Using all journals, posting, and balancing the ledgers

Learning Objectives 2, 3

Trial balance, total debits $47,950

Atlanta Computer Security uses the perpetual inventory system and makes all credit sales on terms of n/30. During March, Atlanta completed these transactions:

Mar. 2	Issued invoice no. 191 for sale on account to L. E. Kingston, $3,000 (cost, $800).
3	Purchased merchandise inventory on credit terms of 3/10, n/60 from High, $2,500.
4	Sold merchandise inventory for cash, $1,100 (cost, $300).
5	Issued check no. 473 to purchase furniture for cash $2,450.
8	Collected interest revenue of $1,150.
9	Issued invoice no. 192 for sale on account to Common Co., $5,700 (cost, $2,200).
10	Purchased merchandise inventory for cash, $1,400, issuing check no. 474.
12	Received cash from L. E. Kingston in full settlement of her account receivable from the sale of March 2.
13	Issued check no. 475 to pay High net amount owed from March 3. Round to the nearest dollar.
13	Purchased office supplies on account from Mann Corp., $350. Terms were n/EOM.
15	Sold merchandise inventory on account to Suarez Co., issuing invoice no. 193 for $700 (cost, $250).
18	Issued invoice no. 194 for credit sale to L. E. Kingston, $400 (cost, $200).
19	Received cash from Common Co. in full settlement of its account receivable from March 9.
20	Purchased merchandise inventory on credit terms of n/30 from James Swenson, $2,200.
22	Purchased furniture on credit terms of 3/10, n/60 from High, $400.
22	Issued check no. 476 to pay for insurance coverage, debiting Prepaid Insurance for $1,800.
24	Sold office supplies to an employee for cash of $100, which was Atlanta's cost.
25	Received bill and issued check no. 477 to pay utilities, $550.
28	Purchased merchandise inventory on credit terms of 2/10, n/30 from Mann Corp., $550.
29	Returned damaged merchandise inventory to Mann Corp., issuing a debit memo for $550.
29	Sold merchandise inventory on account to Common Co., issuing invoice no. 195 for $2,800 (cost, $1,400).
30	Issued check no. 478 to pay Mann Corp. in full for March 13 purchase.
31	Received cash in full from L. E. Kingston on credit sale of March 18.
31	Issued check no. 479 to pay monthly salaries of $1,550.

PB–29B, cont.

Requirements

1. Open four-column general ledger accounts using Atlanta Computer Security's account numbers and balances as of March 1, 2018, that follow. All accounts have normal balances.

Number	Account	Bal.
111	Cash	$ 15,800
112	Accounts Receivable	1,900
114	Merchandise Inventory	6,500
116	Office Supplies	600
117	Prepaid Insurance	0
151	Furniture	2,000
211	Accounts Payable	900
311	Common Stock	14,000
314	Retained Earnings	6,600
411	Sales Revenue	7,600
419	Interest Revenue	1,400
511	Cost of Goods Sold	2,100
531	Salaries Expense	1,300
541	Utilities Expense	300

2. Open four-column accounts in the subsidiary ledgers with beginning balances as of March 1, if any. Accounts receivable subsidiary ledger: Arrundel Co., $1,900; Common Co., $0; L. E. Kingston, $0; and Suarez, $0. Accounts payable subsidiary ledger: High, $0; Mann Corp, $0; James Swenson, $0; and Young Co., $900.
3. Enter the transactions in a sales journal (page 8), a cash receipts journal (page 3, omit Sales Discounts Forfeited column), a purchases journal (page 6), a cash payments journal (page 9), and a general journal (page 4), as appropriate.
4. Post daily to the accounts receivable subsidiary ledger and to the accounts payable subsidiary ledger.
5. Total each column of the special journals. Show that total debits equal total credits in each special journal. On March 31, post to the general ledger.
6. Prepare a trial balance as of March 31, 2018, to verify the equality of the general ledger. Balance the total of the customer account ending balances in the accounts receivable subsidiary ledger against Accounts Receivable in the general ledger. Do the same for the accounts payable subsidiary ledger and Accounts Payable in the general ledger.

PB–29B, cont.

SOLUTION

Requirements 1 and 5

Cash					**No. 111**
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.				15,800	
Mar. 31	CR.3	11,450		27,250	
31	CP.9		10,525	16,725	

Accounts Receivable					**No. 112**
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.				1,900	
Mar. 31	S.8	12,600		14,500	
31	CR.3		9,100	5,400	

Merchandise Inventory					**No. 114**
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.				6,500	
Mar. 10	CP.9	1,400		7,900	
29	J.4		550	7,350	
31	S.8		4,850	2,500	
31	CR.3		300	2,200	
31	P.6	5,250		7,450	
31	CP.9		75	7,375	

PB–29B, cont.
Requirements 1 and 5, cont.

Office Supplies					No. 116
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				600	
Mar. 24	CR.3		100	500	
31	P.6	350		850	

Prepaid Insurance					No. 117
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				0	
Mar. 22	CP.9	1,800		1,800	

Furniture					No. 151
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				2,000	
Mar. 5	CP.9	2,450		4,450	
22	P.6	400		4,850	

Accounts Payable					No. 211
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					900
Mar. 29	J.4	550			350
31	P.6		6,000		6,350
31	CP.9	2,850			3,500

Common Stock					No. 311
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					14,000

PB–29B, cont.
Requirements 1 and 5, cont.

Retained Earnings					No. 314
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					6,600

Sales Revenue					No. 411
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					7,600
Mar. 31	S.8		12,600		20,200
31	CR.3		1,100		21,300

Interest Revenue					No. 419
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					1,400
Mar. 8	CR.3		1,150		2,550

PB–29B, cont.
Requirements 1 and 5, cont.

Cost of Goods Sold					**No. 511**
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.				2,100	
Mar. 31	S.8	4,850		6,950	
31	CR.3	300		7,250	

Salaries Expense					**No. 531**
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.				1,300	
Mar. 31	CP.9	1,550		2,850	

Utilities Expense					**No. 541**
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.				300	
Mar.25	CP.9	550		850	

PB-29B, cont.
Requirements 2 and 4

Accounts Receivable—Arrundel Co.					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				1,900	

Accounts Receivable—Common Co.					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				0	
Mar. 9	S.8	5,700		5,700	
19	CR.3		5,700	0	
29	S.8	2,800		2,800	

Accounts Receivable—L. E. Kingston					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				0	
Mar. 2	S.8	3,000		3,000	
12	CR.3		3,000	0	
18	S.8	400		400	
31	CR.3		400	0	

Accounts Receivable—Suarez Co.					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				0	
Mar. 15	S.8	700		700	

Accounts Payable—High					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					0
Mar. 3	P.6		2,500		2,500
13	CP.9	2,500			0
22	P.6		400		400

PB-29B, cont.
Requirements 2 and 4, cont.

Accounts Payable—Mann Corp.					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					0
Mar. 13	P.6		350		350
28	P.6		550		900
29	J.4	550			350
30	CP.9	350			0

Accounts Payable—James Swenson					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					0
Mar. 20	P.6		2,200		2,200

Accounts Payable—Young Co.					
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					900

PB–29B, cont.
Requirements 3, 4, 5 and 6

Sales Journal					**Page 8**
				Accounts Receivable DR	**Cost of Goods Sold DR**
Date	**Invoice No.**	**Customer Account Debited**	**Post. Ref.**	**Sales Revenue CR**	**Merchandise Inventory CR**
2018					
Mar. 2	191	L. E. Kingston	✓	3,000	800
9	192	Common Co.	✓	5,700	2,200
15	193	Suarez Co.	✓	700	250
18	194	L. E. Kingston	✓	400	200
29	195	Common Co.	✓	2,800	1,400
31		Totals		12,600	4,850
				(112/411)	(511/114)

Debits: Accounts Receivable + Cost of Goods Sold
$12,600 + $4,850 = **$17,450**

Credits: Sales Revenue + Merchandise Inventory
$12,600 + $4,850 = **$17,450**

PB–29B, cont.
Requirements 3, 4, 5 and 6, cont.

Cash Receipts Journal							**Page 3**
							Cost of Goods Sold DR
Date	**Account Credited**	**Post. Ref.**	**Cash DR**	**Accounts Receivable CR**	**Sales Revenue CR**	**Other Accounts CR**	**Merchandise Inventory CR**
2018							
Mar. 4			1,100		1,100		300
8	Interest Revenue	419	1,150			1,150	
12	L. E. Kingston	✓	3,000	3,000			
19	Common Co.	✓	5,700	5,700			
24	Office Supplies	116	100			100	
31	L. E. Kingston	✓	400	400			
31	Totals		11,450	9,100	1,100	1,250	300
			(111)	(112)	(411)	(X)	(511/114)

Debits: Cash + Cost of Goods Sold
$11,450 + $300 = **$11,750**

Credits: Accounts Receivable + Sales Revenue + Other Accounts + Merchandise Inventory
$9,100 + $1,100 + $1,250 + $300 = **$11,750**

PB–29B, cont.
Requirements 3, 4, 5 and 6, cont.

Purchases Journal									Page 6
							Other Accounts DR		
Date	Vendor Account Credited	Terms	Post. Ref.	Accounts Payable CR	Merchandise Inventory DR	Office Supplies DR	Account Title	Post. Ref.	Amount
2018									
Mar. 3	High	3/10, n/60	✓	2,500	2,500				
13	Mann Corp.	n/EOM	✓	350		350			
20	James Swenson	n/30	✓	2,200	2,200				
22	High	3/10, n/60	✓	400			Furniture	151	400
28	Mann Corp.	2/10, n/30	✓	550	550				
31	Totals			6,000	5,250	350			400
				(211)	(114)	(116)			(X)

Debits: Merchandise Inventory + Office Supplies + Other Accounts
$5,250 + $350 + $400 = **$6,000**

Credits: Accounts Payable
$6,000

PB–29B, cont.
Requirements 3, 4, 5 and 6, cont.

Cash Payments Journal							**Page 9**
Date	**Ck. No.**	**Account Debited**	**Post. Ref.**	**Other Accounts DR**	**Accounts Payable DR**	**Merchandise Inventory CR**	**Cash CR**
2018							
Mar. 5	473	Furniture	151	2,450			2,450
10	474	Merchandise Inventory	114	1,400			1,400
13	475	High[1]	✓		2,500	75	2,425
22	476	Prepaid Insurance	117	1,800			1,800
25	477	Utilities Expense	541	550			550
30	478	Mann Corp.	✓		350		350
31	479	Salaries Expense	531	1,550			1,550
31		Totals		7,750	2,850	75	10,525
				(X)	(211)	(114)	(111)

[1]$2,500 × 3% = $75; $2,500 – $75 = $2,425

Debits: Other Accounts + Accounts Payable
$7,750 + $2,850 = **$10,600**

Credits: Merchandise Inventory + Cash
$75 + $10,525 = **$10,600**

PB–29B, cont.
Requirements 3, 4, 5 and 6, cont.

General Journal				Page 4
Date	**Accounts and Explanation**	**Post. Ref.**	**Debit**	**Credit**
Mar. 29	Accounts Payable—Mann Corp.	211/✓	550	
	Merchandise Inventory	114		550
	Issued debit memo for purchase return.			

Requirement 6

ATLANTA COMPUTER SECURITY
Trial Balance
March 31, 2018

Acct. No.	Account Name	Debit	Credit
111	Cash	$ 16,725	
112	Accounts Receivable	5,400	
114	Merchandise Inventory	7,375	
116	Office Supplies	850	
117	Prepaid Insurance	1,800	
151	Furniture	4,850	
211	Accounts Payable		$ 3,500
311	Common Stock		14,000
314	Retained Earnings		6,600
411	Sales Revenue		21,300
419	Interest Revenue		2,550
511	Cost of Goods Sold	7,250	
531	Salaries Expense	2,850	
541	Utilities Expense	850	
	Totals	$ 47,950	$ 47,950

PB–29B, cont.
Requirement 6, cont.

Accounts Receivable Subsidiary Ledger

Customer	Balance
Arrundel Co.	$ 1,900
Common Co.	2,800
L. E. Kingston	0
Suarez	700
Total	$ 5,400

The total of the customer balances in the accounts receivable subsidiary ledger agrees with the balance in Accounts Receivable in the general ledger: $5,400.

Accounts Payable Subsidiary Ledger

Vendor	Balance
High	$ 400
Mann Corp.	0
James Swenson	2,200
Young Co.	900
Total	$ 3,500

The total of the vendor balances in the accounts payable subsidiary ledger agrees with the balance in Accounts Payable in the general ledger: $3,500.

Continuing Problem

PB–30 Using all journals

This problem continues the Canyon Canoe Company situation from Chapter 4. At the beginning of the new year, Canyon Canoe Company decided to carry and sell T-shirts with its logo printed on them. Canyon Canoe Company uses the perpetual inventory system to account for the inventory. During January 2019, Canyon Canoe Company completed the following merchandising transactions:

Jan. 1	Purchased 10 T-shirts at $4 each and paid cash.
2	Sold 6 T-shirts for $10 each, total cost of $24. Received cash.
3	Purchased 50 T-shirts on account at $5 each. Terms 2/10, n/30.
7	Paid the supplier for the T-shirts purchased on January 3, less discount.
8	Realized 4 T-shirts from the January 1 order were printed wrong and returned them for a cash refund.
10	Sold 40 T-shirts on account for $10 each, total cost of $200. Terms 3/15, n/45.
12	Received payment for the T-shirts sold on account on January 10, less discount.
14	Purchased 100 T-shirts on account at $4 each. Terms 4/15, n/30.
18	Canyon Company called the supplier from the January 14 purchase and told them that some of the T-shirts were the wrong color. The supplier offered a $50 purchase allowance.
20	Paid the supplier for the T-shirts purchased on January 14, less the allowance and discount.
21	Sold 60 T-shirts on account for $10 each, total cost of $220. Terms 2/20, n/30.
23	Received a payment on account for the T-shirts sold on January 21, less discount.
25	Purchased 320 T-shirts on account at $5 each. Terms 2/10, n/30, FOB shipping point.
27	Paid freight associated with the January 25 purchase, $48.
29	Paid for the January 25 purchase, less discount.
30	Sold 275 T-shirts on account for $10 each, total cost of $1,300. Terms 2/10, n/30.
31	Received payment for the T-shirts sold on January 30, less discount.

Requirements

1. Enter the transactions in a sales journal (page 2), a cash receipts journal (page 5, omit Sales Discounts Forfeited column), a purchases journal (page 7), a cash payments journal (page 6), and a general journal (page 4), as appropriate.
2. Total each column of the special journals. Show that total debits equal total credits in each special journal.

PB–30, cont.

SOLUTION

Requirements 1 and 2

Sales Journal				**Page 2**
			Accounts Receivable DR	**Cost of Goods Sold DR**
Date	**Customer Account Debited**	**Post. Ref.**	**Sales Revenue CR**	**Merchandise Inventory CR**
2019				
Jan. 10			388[1]	200
21			588[2]	220
30			2,695[3]	1,300
31	Totals		3,671	1,720

[1]40 × $10 = $400; $400 × 3% = $12; $400 – $12 = $388
[2]60 × $10 = $600; $600 × 2% = $12; $600 – $12 = $588
[3]275 × $10 = $2,750; $2,750 × 2% = $55; $2,750 – $55 = $2,695

Debits: Accounts Receivable + Cost of Goods Sold
$3,671 + $1,720 = **$5,391**

Credits: Sales Revenue + Merchandise Inventory
$3,671 + $1,720 = **$5,391**

PB–30, cont.
Requirements 1 and 2, cont.

Cash Receipts Journal							Page 5
							Cost of Goods Sold DR
Date	**Account Credited**	**Post. Ref.**	**Cash DR**	**Accounts Receivable CR**	**Sales Revenue CR**	**Other Accounts CR**	**Merchandise Inventory CR**
2019							
Jan. 2			60		60		24
8	Merchandise Inventory		16			16	
12			388	388			
23			588	588			
31			2,695	2,695			
31	Totals		3,747	3,671	60	16	24

Debits: Cash + Cost of Goods Sold
$3,747 + $24 = **$3,771**

Credits: Accounts Receivable + Sales Revenue + Other Accounts + Merchandise Inventory
$3,671 + $60 + $16 + $24 = **$3,771**

PB–30, cont.
Requirements 1 and 2, cont.

Purchases Journal									Page 7
							Other Accounts DR		
Date	**Vendor Account Credited**	**Terms**	**Post. Ref.**	**Accounts Payable CR**	**Merchandise Inventory DR**	**Office Supplies DR**	**Account Title**	**Post. Ref.**	**Amount**
2019									
Jan. 3		2/10, n/30		250	250				
14		4/15, n/30		400	400				
25		2/10, n/30		1,600	1,600				
31	Totals			2,250	2,250	0			0

Debits: Merchandise Inventory + Office Supplies + Other Accounts
$2,250 + $0 + $0 = **$2,250**

Credits: Accounts Payable
$2,250

PB–30, cont.
Requirements 1 and 2, cont.

Cash Payments Journal							Page 6
Date	**Ck. No.**	**Account Debited**	**Post. Ref.**	**Other Accounts DR**	**Accounts Payable DR**	**Merchandise Inventory CR**	**Cash CR**
2019							
Jan. 1		Merchandise Inventory		40			40
7[1]					250	5	245
20[2]					350	14	336
27		Merchandise Inventory		48			48
29[3]					1,600	32	1,568
31		Totals		88	2,200	51	2,237

[1]$250 × 2% = $5; $250 – $5 = $245
[2]$400 − $50 = $350; 350 × 4% = $14; $350 – $14 = $336
[3]$1,600 × 2% = $32; $1,600 – $32 = $1,568

Debits: Other Accounts + Accounts Payable
$88 + $2,200 = **$2,288**

Credits: Merchandise Inventory + Cash
$51 + $2,237 = **$2,288**

PB–30, cont.
Requirements 1 and 2, cont.

General Journal				Page 4
Date	**Accounts and Explanation**	**Post. Ref.**	**Debit**	**Credit**
Jan. 18	Accounts Payable		50	
	Merchandise Inventory			50

Practice Set

PB–31 Using all journals

This problem continues the Crystal Clear Cleaning practice set begun in Chapter 2 and continued through Chapters 3 and 4.

Crystal Clear Cleaning has decided that, in addition to providing cleaning services, it will sell cleaning products. Crystal Clear uses the perpetual inventory system. During December 2018, Crystal Clear completed the following transactions:

Dec. 2	Purchased 1,000 units of inventory for $4,000 on account from Sparkle Company on terms, 5/10, n/20.
5	Purchased 1,200 units of inventory from Borax on account with terms 4/10, n/30. The total invoice was for $6,000, which included a $300 freight charge.
7	Returned 300 units of inventory to Sparkle from the December 2 purchase (cost $1,200).
9	Paid Borax.
11	Sold 500 units of goods to Happy Maids for $5,500 on account with terms n/30. Crystal Clear's cost of the goods was $2,000.
12	Paid Sparkle.
15	Received 100 units with a retail price of $1,100 back from customer Happy Maids. The goods cost Crystal Clear $400.
21	Received payment from Happy Maids, settling the amount due in full.
28	Sold 500 units of goods to Bridget, Inc. on account for $6,500 (cost $2,022). Terms 1/15, n/30.
29	Paid cash for utilities of $550.
30	Paid cash for Sales Commission Expense of $214.
31	Received payment from Bridget, Inc., less discount.

Requirements

1. Use the appropriate journal to record the preceding transactions in a sales journal (omit the Invoice No. column), a cash receipts journal (omit Sales Discounts Forfeited column), a purchases journal, a cash payments journal (omit the Check No. column), and a general journal.
2. Total each column of the special journals. Show that total debits equal total credits in each special journal.

PB–31, cont.

SOLUTION

Requirements 1 and 2

Sales Journal				**Page 1**
			Accounts Receivable DR	**Cost of Goods Sold DR**
Date	**Customer Account Debited**	**Post. Ref.**	**Sales Revenue CR**	**Merchandise Inventory CR**
2018				
Dec. 11	Happy Maids		5,500	2,000
28	Bridget, Inc.		6,435[1]	2,022
31	Totals		11,935	4,022

[1]$6,500 × 1% = $65; $6,500 – $65 = $6,435

Debits: Accounts Receivable + Cost of Goods Sold
$11,935 + $4,022 = **$15,957**

Credits: Sales Revenue + Merchandise Inventory
$11,935 + $4,022 = **$15,957**

PB–31, cont.
Requirements 1 and 2, cont.

Cash Receipts Journal							**Page 1**
							Cost of Goods Sold DR
Date	**Account Credited**	**Post. Ref.**	**Cash DR**	**Accounts Receivable CR**	**Sales Revenue CR**	**Other Accounts CR**	**Merchandise Inventory CR**
2018							
Dec. 21	Happy Maids		4,400	4,400			
31	Bridget Inc.		6,435	6,435			
31	Totals		10,835	10,835	0	0	0

Debits: Cash + Cost of Goods Sold
$10,835 + $0 = **$10,835**

Credits: Accounts Receivable + Sales Revenue + Other Accounts + Merchandise Inventory
$10,835 + $0 = **$10,835**

PB–31 cont.
Requirements 1 and 2, cont.

Purchases Journal									Page 1
							Other Accounts DR		
Date	Vendor Account Credited	Terms	Post. Ref.	Accounts Payable CR	Merchandise Inventory DR	Office Supplies DR	Account Title	Post. Ref.	Amount
2018									
Dec. 2	Sparkle Co.	5/10, n/20		4,000	4,000				
5	Borax	4/10, n/30		6,000	6,000				
31	Totals			10,000	10,000	0			0

Debits: Merchandise Inventory + Office Supplies + Other Accounts
$10,000 + $0 + $0 = **$10,000**

Credits: Accounts Payable
$10,000

PB–31, cont.
Requirements 1 and 2, cont.

Cash Payments Journal							**Page 1**
Date	**Ck. No.**	**Account Debited**	**Post. Ref.**	**Other Accounts DR**	**Accounts Payable DR**	**Merchandise Inventory CR**	**Cash CR**
2018							
Dec. 9		Borax[1]			6,000	228	5,772
12		Sparkle[2]			2,800	140	2,660
29		Utilities Expense		550			550
30		Sales Commission Expense		214			214
31		Totals		764	8,800	368	9,196

[1]($6,000 – $300) = $5,700 × 4% = $228; $6,000 – $228 = $5,772
[2]($4,000 – $1,200) = $2,800 × 5% = $140; $2,800 – $140 = $2,660

Debits: Other Accounts + Accounts Payable
$764 + $8,800 = **$9,564**

Credits: Merchandise Inventory + Cash
$368 + $9,196 = **$9,564**

PB–31, cont.
Requirements 1 and 2, cont.

General Journal				Page 1
Date	**Accounts and Explanation**	**Post. Ref.**	**Debit**	**Credit**
Dec. 7	Accounts Payable—Sparkle Co.		1,200	
	Merchandise Inventory			1,200
15	Refunds Payable		1,100	
	Accounts Receivable—Happy Maids			1,100
	Merchandise Inventory		400	
	Estimated Returns Inventory			400

Comprehensive Problem for Appendix B

Completing the Accounting Cycle for a Merchandising Entity—Using Special Journals

Amherst Networking Systems adjusts and closes its books and then prepares financial statements monthly. Amherst uses the perpetual inventory system and all sales on credit have terms of n/30. The company completed the following transactions during August:

Aug. 1	Issued check no. 682 for August office rent of $1,300.
2	Issued check no. 683 to pay the salaries payable of $1,300 from July 31.
2	Issued invoice no. 503 for sale on account to R. T. Loeb, $700. Amherst's cost of this merchandise inventory was $210.
3	Purchased merchandise inventory on credit terms of 1/15, n/60 from Goldner, Inc., $1,400.
4	Received cash on account from Friend Company, $2,400.
4	Sold merchandise inventory for cash, $370 (cost, $111).
5	Issued check no. 684 to purchase office supplies for cash, $730.
7	Issued invoice no. 504 for sale on account to K. D. Sanders, $2,100 (cost, $630).
8	Issued check no. 685 to pay Filter Company $2,500 of the amount owed at July 31. This payment occurred after the end of the discount period.
11	Issued check no. 686 to pay Goldner, Inc. the net amount owed from August 3.
12	Received cash from R. T. Loeb in full settlement of her account receivable from August 2.
16	Issued check no. 687 to pay salaries expense of $1,290.
19	Purchased merchandise inventory for cash, $850, issuing check no. 688.
22	Purchased furniture on credit terms of 3/15, n/60 from Bradford Corporation, $510.
23	Sold merchandise inventory on account to Friend Company, issuing invoice no. 505 for $9,000 (cost, $2,700).
24	Received half the July 31 amount receivable from K. D. Sanders.
26	Purchased office supplies on credit terms of 2/10, n/30 from Filter Company, $240.
30	Returned damaged merchandise inventory to the company from whom Amherst made the cash purchase on August 19, receiving cash of $850.
31	Purchased merchandise inventory on credit terms of 1/10, n/30 from Seacrest Supply, $8,000.
31	Issued check no. 689 to stockholders, for dividends, $600.

Requirements

1. Open these four-column accounts with their account numbers and July 31 balances in the various ledgers.

General Ledger

Nbr.	Account Name	Debit	Credit
101	Cash	$ 5,020	
102	Accounts Receivable	22,490	
105	Merchandise Inventory	41,300	
109	Office Supplies	1,680	
117	Prepaid Insurance	2,600	
160	Furniture	37,000	
161	Accumulated Depreciation—Furniture		$ 10,000
201	Accounts Payable		12,700
204	Salaries Payable		1,300
220	Note Payable, Long-term		25,000
301	Common Stock		20,000
305	Retained Earnings		41,090
310	Dividends		
400	Income Summary		
401	Sales Revenue		
501	Cost of Goods Sold		
510	Salaries Expense		
513	Rent Expense		
514	Depreciation Expense—Furniture		
516	Insurance Expense		
519	Supplies Expense		

Accounts Receivable Subsidiary Ledger: Friend Company $2,400; R. T. Loeb, $0; Parker, Inc., $11,300; and K. D. Sanders, $8,790.

Accounts Payable Subsidiary Ledger: Bradford Corporation, $0; Filter Company, $12,700; Goldner, Inc., $0; and Seacrest Supply, $0.

2. Journalize the August transactions using a sales journal (page 4), a cash receipts journal (page 11, omit Sales Discounts Forfeited column), a purchases journal (page 8), a cash payments journal (page 5), and a general journal (page 9).

3. Post daily to the accounts receivable subsidiary ledger and the accounts payable subsidiary ledger. On August 31, post to the general ledger.

4. Prepare an unadjusted trial balance for the month ended August 31.

5. Journalize and post the following adjusting entries:

a. Office supplies on hand, $1,000.

b. Prepaid insurance expired, $350.

c. Depreciation expense on furniture, $250.

d. Accrued salaries expense, $1,060.

6. Prepare an adjusted trial balance.

7. Prepare a multistep income statement, statement of retained earnings, and classified balance sheet.

8. Journalize closing entries and post.

9. Prepare a post-closing trial balance.

SOLUTION

Requirements 1, 3, 5, and 8

Cash					**No. 101**
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.				5,020	
Aug. 31	CR.11	8,715		13,735	
31	CP.5		9,956	3,779	

Accounts Receivable					**No. 102**
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.				22,490	
Aug. 31	S.4	11,800		34,290	
31	CR.11		7495	26,795	

Merchandise Inventory					**No. 105**
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.				41,300	
19	CP.5	850		42,150	
30	CR.11		850	41,300	
31	P.8	9,400		50,700	
31	S.4		3,540	47,160	
31	CR.11		111	47,049	
31	CP.5		14	47,035	

Office Supplies					No. 109
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.				1,680	
Aug. 5	CP.5	730		2,410	
31	P.8	240		2,650	
Adj.	J.9		1,650	1,000	

Prepaid Insurance					No. 117
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.				2,600	
Adj.	J.9		350	2,250	

Furniture					No. 160
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.				37,000	
Aug. 22	P.8	510		37,510	

Accumulated Depreciation—Furniture					No. 161
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.					10,000
Adj.	J.9		250		10,250

Accounts Payable					No. 201
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.					12,700
Aug. 31	P.8		10,150		22,850
31	CP.5	3,900			18,950

Salaries Payable					No. 204
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.					1,300
Aug. 2	CP.5	1,300			0
Adj.	J.9		1,060		1,060

Notes Payable, Long-term					No. 220
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					25,000

Common Stock					No. 301
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					20,000

Retained Earnings					No. 305
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					41,090
Clo.	J.9		2,619		43,709
Clo.	J.9	600			43,109

Dividends					No. 310
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				0	
Aug. 31	CP.5	600		600	
Clo.	J.9		600	0	

Income Summary					No. 400
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					0
Clo.	J.9		12,170		12,170
Clo.	J.9	9,551			2,619
Clo.	J.9	2,619			0

Sales Revenue					No. 401
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.					0
Aug. 31	S.4		11,800		11,800
31	CR.11		370		12,170
Clo.	J.9	12,170			0

Comprehensive Problem, cont.
Requirements 1, 3, 5, and 8, cont.

Cost of Goods Sold					No. 501
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				0	
Aug. 31	S.4	3,540		3,540	
31	CR.11	111		3,651	
Clo.	J.9		3,651	0	

Salaries Expense					No. 510
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				0	
Aug. 16	CP.5	1,290		1,290	
Adj.	J.9	1,060		2,350	
Clo.	J.9		2,350	0	

Rent Expense					No. 513
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				0	
Aug. 1	CP.5	1,300		1,300	
Clo.	J.9		1,300	0	

Depreciation Expense—Furniture					No. 514
	Post.			Balance	
Date	Ref.	Debit	Credit	Debit	Credit
Bal.				0	
Adj.	J.9	250		250	
Clo.	J.9		250	0	

Comprehensive Problem, cont.
Requirements 1, 3, 5, and 8, cont.

Insurance Expense					**No. 516**
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.				0	
Adj.	J.9	350		350	
Clo.	J.9		350	0	

Supplies Expense					**No. 519**
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.				0	
Adj.	J.9	1,650		1,650	
Clo.	J.9		1,650	0	

Subsidiary Ledgers

Accounts Receivable—Friend Co.					
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.				2,400	
Aug. 4	CR.11		2,400	0	
Aug. 23	S.4	9,000		9,000	

Accounts Receivable—R.T. Loeb					
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.				0	
Aug. 2	S.4	700		700	
12	CR.11		700	0	

Accounts Receivable—Parker Inc.					
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.				11,300	

Comprehensive Problem, cont.
Requirements 1, 3, and 5, cont.

Accounts Receivable—K.D. Sanders					
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.				8,790	
Aug. 7	S.4	2,100		10,890	
24	CR.11		4,395	6,495	

Accounts Payable—Bradford Corp.					
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.					0
Aug. 22	P.8		510		510

Accounts Payable—Filter Co.					
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.					12,700
Aug. 8	CP.5	2,500			10,200
26	P.8		240		10,440

Accounts Payable—Goldner Inc.					
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.					0
Aug. 3	P.8		1,400		1,400
11	CP.5	1,400			0

Accounts Payable—Seacrest Supply					
	Post.			**Balance**	
Date	**Ref.**	**Debit**	**Credit**	**Debit**	**Credit**
Bal.					0
Aug. 31	P.8		8,000		8,000

Comprehensive Problem, cont.
Requirements 2 and 3

Sales Journal					Page 4
				Accounts Receivable DR	**Cost of Goods Sold DR**
Date	**Invoice No.**	**Customer Account Debited**	**Post. Ref.**	**Sales Revenue CR**	**Merchandise Inventory CR**
Aug. 2	503	R. T. Loeb	✓	700	210
7	504	K. D. Sanders	✓	2,100	630
23	505	Friend Co.	✓	9,000	2,700
31		Totals		11,800	3,540
				(102/401)	(501/105)

Debits: Accounts Receivable + Cost of Goods Sold
$11,800 + $3,540 = **$15,340**

Credits: Sales Revenue + Merchandise Inventory
$11,800 + $3,540 = **$15,340**

Comprehensive Problem, cont.
Requirements 2 and 3, cont.

Cash Receipts Journal							**Page 11**
							Cost of Goods Sold DR
Date	**Account Credited**	**Post. Ref.**	**Cash DR**	**Accounts Receivable CR**	**Sales Revenue CR**	**Other Accounts CR**	**Merchandise Inventory CR**
Aug. 4	Friend Co.	✓	2,400	2,400			
4			370		370		111
12	R. T. Loeb	✓	700	700			
24	K. D. Sanders	✓	4,395	4,395			
30	Merchandise Inventory	105	850			850	
31	Totals		8,715	7,495	370	850	111
			(101)	(102)	(401)	(X)	(501/105)

Debits: Cash + Cost of Goods Sold
$8,715 + $111 = **$8,826**

Credits: Accounts Receivable + Sales Revenue + Other Accounts + Merchandise Inventory
$7,495 + $370 + $850 + $111 = **$8,826**

Comprehensive Problem, cont.
Requirements 2 and 3, cont.

Purchases Journal									Page 8
							Other Accounts DR		
Date	Vendor Account Credited	Terms	Post. Ref.	Accounts Payable CR	Merchandise Inventory DR	Office Supplies DR	Account Title	Post. Ref.	Amount
Aug. 3	Goldner Inc.	1/15, n/60	✓	1,400	1,400				
22	Bradford Corp.	3/15, n/60	✓	510			Furniture	160	510
26	Filter Co.	2/10, n/30	✓	240		240			
31	Seacrest Supply	1/10, n/30	✓	8,000	8,000				
31	Totals			10,150	9,400	240			510
				(201)	(105)	(109)			(X)

Debits: Merchandise Inventory + Office Supplies + Other Accounts
$9,400 + $240 + $510 = **$10,150**

Credits: Accounts Payable
$10,150

Comprehensive Problem, cont.
Requirements 2 and 3, cont.

Cash Payments Journal							Page 5
Date	**Ck. No.**	**Account Debited**	**Post. Ref.**	**Other Accounts DR**	**Accounts Payable DR**	**Merchandise Inventory CR**	**Cash CR**
Aug. 1	682	Rent Expense	513	1,300			1,300
2	683	Salaries Payable	204	1,300			1,300
5	684	Office Supplies	109	730			730
8	685	Filter Co.	✓		2,500		2,500
11	686	Goldner Inc.	✓		1,400	14	1,386
16	687	Salaries Expense	510	1,290			1,290
19	688	Merchandise Inventory	105	850			850
31	689	Dividends	310	600			600
31		Totals		6,070	3,900	14	9,956
				(X)	(201)	(105)	(101)

Debits: Other Accounts + Accounts Payable
$6,070 + $3,900 = **$9,970**

Credits: Merchandise Inventory + Cash
$14 + $9,956 = **$9,970**

Requirement 4

AMHERST NETWORKING SYSTEMS
Unadjusted Trial Balance
August 31

Acct. No.	Account Name	Debit	Credit
101	Cash	$ 3,779	
102	Accounts Receivable	26,795	
105	Merchandise Inventory	47,035	
109	Office Supplies	2,650	
117	Prepaid Insurance	2,600	
160	Furniture	37,510	
161	Accumulated Depreciation—Furniture		$ 10,000
201	Accounts Payable		18,950
220	Note Payable—long-term		25,000
301	Common Stock		20,000
305	Retained Earnings		41,090
310	Dividends	600	
401	Sales Revenue		12,170
501	Cost of Goods Sold	3,651	
510	Salaries Expense	1,290	
513	Rent Expense	1,300	
	Totals	$ 127,210	$ 127,210

Comprehensive Problem, cont.
Requirement 4, cont.

Accounts Receivable Subsidiary Ledger

Customer	Balance
Friend Co.	$ 9,000
R. T. Loeb	0
Parker Inc.	11,300
K. D. Sanders	6,495
Total	$26,795

The total of the customer balances in the accounts receivable subsidiary ledger agrees with the balance in Accounts Receivable in the general ledger: $26,795.

Accounts Payable Subsidiary Ledger

Vendor	Balance
Bradford Corp.	$ 510
Filter Co.	10,440
Goldner Inc.	0
Seacrest Supply	8,000
Totals	$ 18,950

The total of the vendor balances in the accounts payable subsidiary ledger agrees with the balance in Accounts Payable in the general ledger: $18,950.

Comprehensive Problem, cont.
Requirement 5

General Journal				Page 9
Date	**Accounts and Explanation**	**Post. Ref.**	**Debit**	**Credit**
Aug. 31(a)	Supplies Expense	519	1,650	
`	Office Supplies	109		1,650
(b)	Insurance Expense	516	350	
	Prepaid Insurance	117		350
(c)	Depreciation Expense—Furniture	514	250	
	Accumulated Depreciation—Furniture	161		250
(d)	Salaries Expense	510	1,060	
	Salaries Payable	204		1,060

Comprehensive Problem, cont.
Requirement 6

AMHERST NETWORKING SYSTEMS Adjusted Trial Balance August 31		
Account Name	**Debit**	**Credit**
Cash	$ 3,779	
Accounts Receivable	26,795	
Merchandise Inventory	47,035	
Office Supplies	1,000	
Prepaid Insurance	2,250	
Furniture	37,510	
Accumulated Depreciation—Furniture		$ 10,250
Accounts Payable		18,950
Salaries Payable		1,060
Note Payable—long-term		25,000
Common Stock		20,000
Retained Earnings		41,090
Dividends	600	
Sales Revenue		12,170
Cost of Goods Sold	3,651	
Salaries Expense	2,350	
Rent Expense	1,300	
Depreciation Expense—Furniture	250	
Insurance Expense	350	
Supplies Expense	1,650	
Totals	$ 128,520	$ 128,520

Comprehensive Problem, cont.

Requirement 7

AMHERST NETWORKING SYSTEMS		
Income Statement		
For the Month Ended August 31		
Net Sales Revenue		$ 12,170
Cost of Goods Sold		(3,651)
Gross Profit		8,519
Operating Expenses:		
Salaries Expense	2,350	
Supplies Expense	1,650	
Rent Expense	1,300	
Insurance Expense	350	
Depreciation Expense—Furniture	250	
Total Operating Expenses		(5,900)
Net Income		$ 2,619

AMHERST NETWORKING SYSTEMS	
Statement of Retained Earnings	
For the Month Ended August 31	
Retained Earnings, August 1	$ 41,090
Net income for the month	2,619
	$ 43,709
Dividends	(600)
Retained Earnings, August 31	$ 43,109

Comprehensive Problem, cont.
Requirement 7, cont.

AMHERST NETWORKING SYSTEMS
Balance Sheet
August 31

Assets		
Current Assets:		
Cash	$ 3,779	
Accounts Receivable	26,795	
Merchandise Inventory	47,035	
Office Supplies	1,000	
Prepaid Insurance	2,250	
Total Current Assets		$80,859
Property, Plant, and Equipment:		
Furniture	37,510	
Less: Accumulated Depreciation	10,250	
Total Property, Plant, and Equipment		27,260
Total Assets		$ 108,119
Liabilities		
Current Liabilities:		
Accounts Payable	$ 18,950	
Salaries Payable	1,060	
Total Current Liabilities		$ 20,010
Long-term Liabilities:		
Notes Payable		25,000
Total Liabilities		$ 45,010
Stockholders' Equity		
Common Stock		20,000
Retained Earnings		43,109
Total Stockholders' Equity		63,109
Total Liabilities and Stockholders' Equity		$ 108,119

Comprehensive Problem, cont.
Requirement 8

General Journal				Page 9
Date	**Accounts and Explanation**	**Post. Ref.**	**Debit**	**Credit**
Aug. 31	Sales Revenue	401	12,170	
	Income Summary	400		12,170
	Income Summary	400	9,551	
	Cost of Goods Sold	501		3,651
	Salaries Expense	510		2,350
	Rent Expense	513		1,300
	Depreciation Expense—Furniture	514		250
	Insurance Expense	516		350
	Supplies Expense	519		1,650
	Income Summary	400	2,619	
	Retained Earnings	305		2,619
	Retained Earnings	305	600	
	Dividends	310		600

Comprehensive Problem, cont.
Requirement 9

AMHERST NETWORKING SYSTEMS
Post-Closing Trial Balance
August 31

Account Name	**Debit**	**Credit**
Cash	$ 3,779	
Accounts Receivable	26,795	
Merchandise Inventory	47,035	
Office Supplies	1,000	
Prepaid Insurance	2,250	
Furniture	37,510	
Accumulated Depreciation—Furniture		$ 10,250
Accounts Payable		18,950
Salaries Payable		1,060
Note Payable—long-term		25,000
Common Stock		20,000
Retained Earnings		43,109
Totals	$ 118,369	$ 118,369

Critical Thinking

Tying It All Together Case B-1

Before you begin this assignment, review the Tying It All Together feature in the chapter. It will also be helpful if you review McCormick & Company, Incorporated's 2015 annual report (http://phx.corporate-ir.net/phoenix.zhtml?c=65454&p=irol-sec&control_symbol=#14157537).

McCormick & Company Incorporated, is a global leader in flavor that manufactures, markets, and distributes spices, seasoning mixes, condiments, and other flavorful products. The company's brands include McCormick, Lawry's, and Club House. In addition, the company also markets authentic ethnic brands such as Zatarain's, Thai Kitchen, and Simply Asia.

Requirements

1. Review Item 1A (Risk Factors) of the Notes to the Financial Statements. How does McCormick & Company, Incorporated minimize the risks associated with data breaches or cyber attacks?
2. Perform a web search on ways businesses can prevent security breaches. What are some security solutions that McCormick & Company might use?

SOLUTION

Requirement 1

McCormick & Company, Incorporated invests in security technology to protect its data and business processes against risk of data security breaches and cyber attacks.

Requirement 2

Answers will vary but might include security measures such as antivirus software, firewalls, encryption software, and two-step authentication or password security software.

Decision Case B–1

A fire destroyed certain accounting records of Green Books. The controller, Marilyn Green, asks your help in reconstructing the records. All of the sales are on account, with credit terms of n/30. The only accounting record preserved from the fire is the accounts receivable subsidiary ledger, which follows.

Requirements

1. Determine the beginning and ending balances of Accounts Receivable.
2. Determine the sales on account in the month of April.
3. Determine total cash receipts on account from customers during April.

Garcia Sales

				Balance	
Date	Post. Ref.	Debit	Credit	Debit	Credit
Apr. 1				450	
3	CR.8		450	0	
25	S.6	3,600		3,600	
29	S.6	1,100		4,700	

Leewright, Inc.

				Balance	
Date	Post. Ref.	Debit	Credit	Debit	Credit
Apr. 1				2,800	
15	S.6	2,600		5,400	
29	CR.8		1,500	3,900	

Sally Jones

				Balance	
Date	Post. Ref.	Debit	Credit	Debit	Credit
Apr. 1				1,100	
5	CR.8		1,100	0	
11	S.6	400		400	
21	CR.8		400	0	
24	S.6	2,000		2,000	

Jacques LeHavre

				Balance	
Date	Post. Ref.	Debit	Credit	Debit	Credit
Apr. 1				0	
8	S.6	2,400		2,400	
16	S.6	900		3,300	
18	CR.8		2,400	900	
19	J.5		200	700	
27	CR.8		700	0	

SOLUTION

Requirement 1

Accounts Receivable Subsidiary Ledger
April 1

Customer	Balance
Garcia Sales	$ 450
Leewright, Inc.	2,800
Sally Jones	1,100
Jacques LeHavre	0
Total	$ 4,350

Accounts Receivable Subsidiary Ledger
April 30

Customer	Balance
Garcia Sales	$ 4,700
Leewright, Inc.	3,900
Sally Jones	2,000
Jacques LeHavre	0
Total	$ 10,600

Requirement 2

Sales on Account		
Date	**Customer**	**Amount**
Apr. 8	Jacques LeHavre	$ 2,400
11	Sally Jones	400
15	Leewright, Inc.	2,600
16	Jacques LeHavre	900
24	Sally Jones	2,000
25	Garcia Sales	3,600
29	Garcia Sales	1,100
	Total	$ 13,000

Requirement 3

Date	**Customer**	**Invoice Amount**	**Cash Receipts**
Apr. 3	Garcia Sales	$ 450	$ 450
5	Sally Jones	1,100	1,100
18	Jacques LeHavre	2,400	2,400
21	Sally Jones	400	400
27	Jacques LeHavre	700	700
29	Leewright, Inc.	1,500	1,500
	Total	$ 6,550	$ 6,550

Fraud Case B–1

Didrikson Rubin, the auditor of Red Barn Farm Equipment, was verifying cash payments to vendors for the past several months. She noticed that several checks had been paid to a specific vendor, but she couldn't find a record of the transactions in the computerized system. Didrikson suspects that an employee is issuing checks to a fictitious "vendor" and then deleting the transactions from the computerized system. How might Didrikson investigate the suspected fraud?

SOLUTION

Didrikson can investigate the suspected fraud by requesting the source documents associated with the checks. If the employee who is approving the cash payments cannot supply the supporting documentation, then the fraud can be confirmed.

Team Project B–1

Ace Moving is considering investing in an entry-level computerized accounting information system. Ace needs a system that can record customer invoices and cash receipts. In addition, it would like to track all of its bills and cash payments. As a team, investigate the two common entry-level accounting software products: QuickBooks and Sage 50 Accounting. Prepare a PowerPoint presentation that summarizes the similarities and differences between the two software systems.

SOLUTION

Team presentations will vary.

Communication Activity B–1

In 150 words or fewer, explain what an accounting information system is and describe an effective system.

SOLUTION

An accounting information system (AIS) collects, records, stores, and processes accounting data to produce information that is useful for decision makers. An effective AIS provides control, compatibility, flexibility, relevance, and a positive cost/benefit relationship.

Control—safeguards a business's assets and reduces the likelihood of fraud and errors.
Compatibility—works smoothly with the business's employees and organizational structure.
Flexibility— accommodates changes in a business over time.
Relevance— provides information that is relevant, improving decision making and reduces uncertainty.
Positive cost/benefit relationship— a system that gives the most benefit for the least cost.

Solutions

Chapter 16

Try It! Solutions

1. FA
2. MA
3. MA
4. MA
5. FA
6. Product, direct labor, prime and conversion
7. Period
8. Product, manufacturing overhead, conversion
9. Product, direct materials, prime
10. Product, manufacturing overhead, conversion
11. Period

12.

ABC Manufacturing Company Schedule of Cost of Goods Manufactured Year Ended December 31, 2019 (in millions)			
Beginning Work-in-Process Inventory			$ 12
Direct Materials Used:			
Beginning Direct Materials	$ 5		
Purchases of Direct Materials (including Freight In)	25		
Direct Materials Available for Use	30		
Ending Direct Materials	(7)		
Direct Materials Used		$ 23	
Direct Labor		36	
Manufacturing Overhead		17	
Total Manufacturing Costs Incurred during the Year			76
Total Manufacturing Costs to Account For			88
Ending Work-in-Process Inventory			(16)
Cost of Goods Manufactured			**$ 72**

ABC Manufacturing Company Schedule of Cost of Goods Sold Year Ended December 31, 2019 (in millions)	
Beginning Finished Goods Inventory	$ 8
Cost of Goods Manufactured	72
Cost of Goods Available for Sale	80
Ending Finished Goods Inventory	(6)
Cost of Goods Sold	$ 74

13. d

14. e

15. a

16. c

17. b

18.

Total costs / Total number of services provided			=	Unit cost per service
$2,340	/	45 offices	=	$52 per office

Chapter 17

Try It! Solutions

1. Process costing
2. Job order costing
3. Job order costing
4. Process costing
5. Job order costing

Date	Accounts and Explanation	Debit	Credit
6.	Raw Materials Inventory	10,000	
	Accounts Payable		10,000
7.	Work-in-Process Inventory	6,000	
	Manufacturing Overhead	500	
	Raw Materials Inventory		6,500
8.	Work-in-Process Inventory ($8,000 × 0.80)	6,400	
	Manufacturing Overhead	1,600	
	Wages Payable		8,000

1. What is an accounting information system (AIS)?

An accounting information system (AIS) is a system that collects, records, stores, and processes accounting data to produce information that is useful for . decision makers.

2. What does an effective accounting information system provide?

An effective accounting information system provides control, compatibility, flexibility, relevance, and a positive cost/benefit relationship.

3. Explain the three basic components of an accounting information system.

The three basic components of an accounting information system are source documents and input devices, processing and storage, and outputs.
Source documents provide the evidence for accounting transactions. In a computerized system, the data is transferred into the AIS by keyboard and computer or computerized scanning equipment.
In a manual system, processing of data includes journalizing transactions and posting to the accounts. Computerized systems use software to process transactions. Data is stored in filing cabinets or offsite document warehouses in a manual system. Computerized systems store data on a server.
The outputs are the reports used for decision making, including financial statements.

4. What is a special journal?

A special journal is an accounting journal designed to record a specific type of transaction.

5. What is the purpose of a subsidiary ledger?

A subsidiary ledger holds individual accounts that support a general ledger account. The sum of the balances of the accounts in the subsidiary ledger equals the balance in the control account. Common examples include Accounts Receivable and Accounts Payable. The subsidiary ledger provides details about a general ledger account. For example, the accounts receivable subsidiary ledger provides details about the accounts receivable for each customer as far as amount paid, amount unpaid, amount purchased on credit, and so on.

6. What is a control account?

A control account is a general ledger account whose balance equals the sum of the balances in a group of related accounts in a subsidiary ledger.

7. List the four special journals often used in a manual accounting information system. What types of transactions are recorded in each of the special journals?

The four special journals often used in a manual accounting information system are:
- Sales journal—used to record sales on account
- Cash receipts journal—used to record cash receipts
- Purchases journal—used to record purchases of inventory and other assets on account.
- Cash payments journal—used to record cash payments

8. Explain the posting process of the sales journal.

Entries in the sales journal are posted to both the accounts receivable subsidiary ledger and the general ledger. Individual accounts receivable are posted daily from the sales journal to the accounts receivable subsidiary ledger. At the end of the month, the totals of the columns are posted to the appropriate accounts in the general ledger: Accounts Receivable, Sales Revenue, Cost of Goods Sold, and Merchandise Inventory.

9. Provide some examples of transactions that would be recorded in the Other Accounts CR column of the cash receipts journal.

The Other Accounts CR column of the cash receipts journal is used to record miscellaneous cash receipt transactions, such as the receipt of cash in exchange for a note payable or the receipt of cash for interest revenue.

10. What are the columns that are typically used in the purchases journal?

The purchases journal typically has special columns for Account Payable CR, Merchandise Inventory DR, Office Supplies DR, and Other Accounts DR. The journal also has columns for the date, vendor account credited, terms of purchase, and posting reference.

11. Explain the posting process of the cash payments journal.

Entries in the cash payments journal are posted to both the accounts payable subsidiary ledger and the general ledger. Individual accounts payable are posted daily from the cash payments journal to the accounts payable subsidiary ledger. At month end, the totals of the columns (except for the Other Accounts DR column) are posted to the appropriate account in the general ledger. Amounts in the Other Accounts DR column are posted individually.

12. When is the general journal used in a manual accounting information system? Provide some examples of transactions that would be recorded in the general journal.

Nonroutine transactions are recorded in the general journal. Examples include sales returns and allowances, purchase returns and allowances, adjusting entries, and closing entries.

13. Explain the two components of a computerized accounting information system.

The two components of a computerized accounting information system are hardware and software. Hardware is the electronic equipment: computers, monitors, printers, and the network that connects them. Software is the set of programs that drives the computer. Accounting software reads, edits, and stores transaction data.

14. What are two common entry-level accounting software systems used by small businesses?

The two common entry-level accounting software systems used by small businesses are QuickBooks™ and Sage 50™ Accounting.

15. What is an enterprise resource planning (ERP) system? What are the advantages and disadvantages of using an ERP?

An enterprise resource planning (ERP) system integrates all of a company's functions, departments, and data into a single system. Advantages include reducing costs, helping companies adjust to changes, and replacing separate software systems, such as sales and payroll. Disadvantages include expensive installation costs and a large commitment of time and people.

16. How is QuickBooks organized?

QuickBooks is organized by function or task. A navigation panel on the left-hand side of the screen is used to select a variety of tasks such as vendors, customers, employees, transactions, and reports.

17. How would a business record a sale of services on account in QuickBooks?

To record a sale of services on account in QuickBooks, the transaction is recorded on the customers tab. Transaction data, such as customer name, date, and amount, is entered and the system posts the transaction to the appropriate general ledger accounts.

18. How would a business record a bill received in QuickBooks?

To record a bill received in QuickBooks, use the vendors tab. Data is entered and QuickBooks posts the transaction to the appropriate general ledger accounts.

SB-1

Consider the features of an effective system. Which features are most important? Why? Which feature must you consider if your financial resources are limited?

Solution:

An effective accounting information system includes control, compatibility, flexibility, relevance, and a positive cost/benefit relationship. All of these features are important, but because In Motion is growing fast, flexibility is especially important to this company. Flexibility in the system will allow In Motion to accommodate changes as it grows. Control and relevance are also extremely important. In Motion must have a system that has internal controls to help safeguard the company's assets, and the company needs relevant data to improve decision making.

If financial resources are limited, the feature that must be considered is the cost/benefit relationship. In Motion should purchase the system that will provide the most benefits in relation to the amount invested in the system.

SB-2

Match each component of a computerized accounting information system with an example. Components may be used more than once.

Solution:

Example	Component
1. Server	B. Processing and Storage
2. Bank checks	A. Source Documents and Input Devices
3. Reports	C. Outputs
4. Keyboard	A. Source Documents and Input Devices
5. Software	B. Processing and Storage
6. Financial statements	C. Outputs
7. Bar code scanner	A. Source Documents and Input Devices

SB-3

Indicate the journal in which you would record transactions a through n.

Solution:

a.	CP
b.	CR
c.	CP
d.	CR
e.	P
f.	S
g.	CR
h.	CP
i.	J
j.	P
k.	CR
l.	J
m.	S
n.	CP

SB-4

Use the following sales journal to record the preceding transactions.

Solution:

Note: This journal shows totals and posting references that are required in Short Exercise SB–5.

Sales Journal					Page 1
				Accounts Receivable DR	**Cost of Goods Sold DR**
Date	**Invoice No.**	**Customer Account Debited**	**Post. Ref.**	**Sales Revenue CR**	**Merchandise Inventory CR**
2018					
Jun. 1	101	Fran Jack	✓	1,220	980
8	102	Ireland Frank	✓	2,025	1,640
13	103	Jake Thompson	✓	420	210
28	104	Gabe West	✓	820	620
30		Totals		4,485	3,450
				(112/411)	(511/118)

SB-5

Requirements

1. Total each column of the sales journal

2. Use the following four-column accounts in the accounts receivable subsidiary ledger.

3. Open the following selected four-column accounts in the general ledger: Accounts Receivable (112); Merchandise Inventory (118), Bal. $5,000; Sales Revenue (411); Cost of Goods Sold (511). Post the total of each column to the general ledger.

4. Balance the total of the customer balances in the accounts receivable subsidiary ledger against Accounts Receivable in the general ledger.

Solution:

Requirement 1

Sales Journal					Page 1
				Accounts Receivable DR	Cost of Goods Sold DR
Date	Invoice No.	Customer Account Debited	Post. Ref.	Sales Revenue CR	Merchandise Inventory CR
2016					
Jun. 1	101	Fran Jack	✓	1,220	980
8	102	Ireland Frank	✓	2,025	1,640
13	103	Jake Thompson	✓	420	210
28	104	Gabe West	✓	820	620
30		Totals		4,485	3,450
				(112/411)	(511/118)

Requirement 2

Accounts Receivable—Frank

Date	Post.	Debit	Credit	Balance Debit	Balance Credit
Jun. 8	S.1	2,025		2,025	

Accounts Receivable—Jack

Date	Post.	Debit	Credit	Balance Debit	Balance Credit
Jun. 1	S.1	1,220		1,220	

Accounts Receivable—Thompson

Date	Post.	Debit	Credit	Balance Debit	Balance Credit
Jun. 13	S.1	420		420	

Accounts Receivable—West

Date	Post.	Debit	Credit	Balance Debit	Balance Credit
Jun. 28	S.1	820		820	

Requirement 3

Accounts Receivable **No. 112**

Date	Post.	Debit	Credit	Balance	
				Debit	Credit
Jun. 30	S.1	4,485		4,485	

Merchandise Inventory **No. 118**

Date	Post.	Debit	Credit	Balance	
				Debit	Credit
Bal.				5,000	
Jun. 30	S.1		3,450	1,550	

Sales Revenue **No. 411**

Date	Post.	Debit	Credit	Balance	
				Debit	Credit
Jun. 30	S.1		4,485		4,485

Cost of Goods Sold **No. 511**

Date	Post.	Debit	Credit	Balance	
				Debit	Credit
Jun. 30	S.1	3,440		3,440	

Requirement 4

Customer	**Balance**
Frank	$ 2,025
Jack	1,220
Thompson	420
West	820
Total	$ 4,485

The total of the customer balances in the accounts receivable subsidiary ledger agrees with the balance in Accounts Receivable in the general ledger: $4,485.

SB-6

Use the following cash receipts journal to record the preceding transactions.

Solution:
Note: This journal shows totals and posting references that are required in Short Exercise SB–7.

Cash Receipts Journal								Page 3
								Cost of Goods Sold DR
Date	Account Credited	Post. Ref.	Cash DR	Accounts Receivable CR	Sales Revenue CR	Sales Discount Forfeited CR	Other Accounts CR	Merchandise Inventory CR
2018								
5			1,700		1700			1,400
12	Interest Revenue	419	2,050				2,050	
18	Heidi Next	✓	1,200	1200				
29	Mitch Dylan	✓	5,300	5280		20		
31	Totals		10,250	6,480	1,700	20	2,050	1,400
			(111)	(112)	(411)	(412)	(X)	(511/118)

SB-7

Requirements

1. Total each column of the cash receipts journal.
2. Use the following four-column accounts in the accounts receivable subsidiary ledger.
3. Open the following selected four-column accounts in the general ledger: Cash (111), Bal. $4,550; Accounts Receivable (112), Bal. $7,530; Merchandise Inventory (118), Bal. $3,250; Sales Revenue (411), Bal. $25,000; Sales Discounts Forfeited (412); Interest Revenue (419); Cost of Goods Sold (511), Bal. $14,500. Post the total of each column to the general ledger. Also, post the Other Accounts to the general ledger.
4. Balance the total of the customer balances in the accounts receivable subsidiary ledger against Accounts Receivable in the general ledger.

Solution:

Requirement 1

Cash Receipts Journal								Page 3
Date	Account Credited	Post. Ref.	Cash DR	Sales Discounts DR	Accounts Receivable CR	Sales Revenue CR	Other Accounts CR	Cost of Goods Sold DR / Merchandise Inventory
2018								
5			1,700		1700			1,400
12	Interest Revenue	419	2,050				2,050	
18	Heidi Next	✓	1,200	1200				
29	Mitch Dylan	✓	5,300	5280		20		
31	Totals		10,250	6,480	1,700	20	2,050	1,400
			(111)	(112)	(411)	(412)	(X)	(511/118)

Requirement 2

Accounts Receivable—Dylan

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				5,280	
Jul. 29	CR.3		5,280	0	

Accounts Receivable—Next

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				2,250	
Jul. 18	CR.3		1,200	1,050	

Requirement 3

Cash **No. 111**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				4,550	
Jul. 31	CR.3	10,250		14,800	

Accounts Receivable **No. 112**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				7,530	
Jul. 31	CR.3		6,480	1,050	

Merchandise Inventory **No. 118**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				3,250	
Jul. 31	CR.3		1,400	1,850	

Sales Revenue **No. 411**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.					25,000
Jul. 31	CR.3		1,700		26,700

Sales Discounts Forfeited **No. 412**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Jul. 31	CR.3	20		20	

Interest Revenue **No. 419**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Jul. 12	CR.3		2,050		2,050

Cost of Goods Sold **No. 511**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				14,500	
Jul. 31	CR.3	1,400		15,900	

Requirement 4

Customer	Balance
Dylan	$0
Next	$1,050
Total	$1,050

The total of the customer balances in the accounts receivable subsidiary ledger agrees with the balance in Accounts Receivable in the general ledger: $$1,050.

SB-8

Use the following purchases journal to record the preceding transactions.

Solution:

Note: This journal shows totals and posting references that are required in Short Exercise SB–9.

Purchases Journal									**Page 6**
Date	**Vendor Account Credited**	**Terms**	**Post. Ref.**	**Accounts Payable CR**	**Merchandise Inventory DR**	**Office Supplies DR**	**Other Accounts DR**		
							Account Title	**Post.**	**Amount**
2018									
Oct. 1	Mayer Co.	4/10, n/30	✓	2,200	2,200				
11	Bird Co.	n/EOM	✓	600		600			
24	Silly Co.	3/10, n/60	✓	900			Furniture	151	900
31	Totals			3,700	2,200	600			900
				(211)	(115)	(116)			(X)

SB-9

Requirements

1. Total each column of the purchases journal.
2. Use the following four-column accounts in the accounts payable subsidiary ledger.
3. Open the following selected four-column accounts in the general ledger: Merchandise Inventory (115); Office Supplies (116); Furniture (151); Accounts Payable (211). Post the total of each column to the general ledger. Also, post the Other Accounts to the general ledger.
4. Balance the total of the vendor balances in the accounts payable subsidiary ledger against Accounts Payable in the general ledger.

Solution:

Requirement 1

Purchases Journal **Page 6**

Date	Vendor Account Credited	Terms	Post. Ref.	Accounts Payable CR	Merchandise Inventory DR	Office Supplies DR	Other Accounts DR: Account Title	Other Accounts DR: Post.	Other Accounts DR: Amount
2018									
Oct. 1	Mayer Co.	4/10, n/30	✓	2,200	2,200				
11	Bird Co.	n/EOM	✓	600		600			
24	Silly Co.	3/10, n/60	✓	900			Furniture	151	900
31	Totals			3,700	2,200	600			900
				(211)	(115)	(116)			(X)

Requirement 2

Accounts Payable—Bird Co.

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Oct. 11	P.6		600		600

Accounts Payable— Mayer Co.

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Oct. 1	P.6		2,200		2,200

Accounts Payable—Silly Co.

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Oct. 24	P.6		900		900

Requirement 3

Merchandise Inventory **No. 115**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Oct. 31	P.6	2,200		2,200	

Office Supplies **No. 116**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Oct. 31	P.6	600		600	

Furniture **No. 151**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Oct.24	P.6	900		900	

Accounts Payable **No. 211**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Oct. 31	P.6		3,700		3,700

Requirement 4

Vendor	**Balance**
Bird	$600
Mayer	2,200
Silly	900
Total	$3,700

The total of the vendor balances in the accounts payable subsidiary ledger agrees with the balance in Accounts Payable in the general ledger: $3,700.

SB-10

Use the following cash payments journal to record the preceding transactions.

Solution:

Note: This journal shows totals and posting references that are required in Short Exercise SB–11.

Cash Payments Journal							**Page 8**
Date	**Ck. No**	**Account Debited**	**Post. Ref.**	**Other Accounts DR**	**Accounts Payable DR**	**Merchandise Inventory CR**	**Cash CR**
2018							
Jan. 5	430	Equipment	150	1,700			1,700
7	431	Merchandise Inventory	118	450			450
18	432	Kat Co.	✓		775	100	675
28	433	Utilities Expense	541	260			260
31		Totals		2,410	775	100	3,085
				(X)	(211)	(118)	(111)

SB-11

Requirements

1. Total each column of the cash payments journal

2. Use the following four-column accounts in the accounts payable subsidiary ledger.

3. Open the following selected four-column accounts in the general ledger:
Cash (111), Bal. $5,000; Merchandise Inventory (118), $2,100; Equipment (150), $9,900; Accounts Payable (211), $1,900; Utilities Expense (541). Post the total of each column to the general ledger. Also, post the Other Accounts to the general ledger.

4. Balance the total of the vendor balances in the accounts payable subsidiary ledger against Accounts Payable in the general ledger.

Solution:

Requirement 1

Cash Payments Journal							**Page 8**
Date	**Ck. No**	**Account Debited**	**Post. Ref.**	**Other Accounts DR**	**Accounts Payable DR**	**Merchandise Inventory CR**	**Cash CR**
2018							
Jan. 5	430	Equipment	150	1,700			1,700
7	431	Merchandise Inventory	118	450			450
18	432	Kat. Co.	✓		775	100	675
28	433	Utilities Expense	541	260			260
31		Total		2,410	775	100	3,085
				(X)	(211)	(118)	(111)

Requirement 2

Accounts Payable—Kat Co.

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.					1,900
Jan. 18	CP.8	775			1,125

Requirement 3

Cash **No. 111**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				5,000	
Jan. 31	CP.8		3,085	1,915	

Merchandise Inventory **No. 118**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				2,100	
Jan. 7	CP.8	450		2,550	
Jan. 31	CP.8		100	2,450	

Equipment **No. 150**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				9,900	
Jan.5	CP.8	1,700		11,600	

Accounts Payable **No. 211**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.					1,900
Jan. 31	CP.8	775			1,125

Utilities Expense **No. 541**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Jan. 28	CP.8	260		260	

Requirement 4

Vendor	Balance
Kat. Co.	$1,125
Total	$1,125

The total of the vendor balances in the accounts payable subsidiary ledger agrees with the balance in Accounts Payable in the general ledger: $1,125.

SB-12

Journalize the above transactions that should be recorded in the general journal. If a transaction should not be recorded in the general journal, identify the special journal that should be used. Assume the company uses the perpetual inventory system.

Solution:

Date	Accounts and Explanation	Debit	Credit
Mar. 6	Refunds Payable	1000	
	Accounts Receivable—B. Kelp		1000
	Merchandise Inventory	680	
	Estimated Returns Inventory		680
	Issued credit memo for sales return.		
28	Accounts Payable—Pond Company	600	
	Merchandise Inventory		600
	Issued debit memo for purchase return.		

Date	Transaction	Special Journal
Mar. 2	Sold merchandise inventory on account	Sales journal
21	Purchased merchandise inventory on account	Purchases journal

SB-13

Requirements

1. What are the two basic components of a computerized accounting information system?
2. Provide examples of each component.
3. If Norman were interested in an entry-level software system, what software might you recommend?

Solution:

Requirement 1

The two basic components of a computerized accounting information system are
hardware and software.

Requirement 2

Examples of hardware: computers, monitors, printers, and the network that
connects them.
Examples of software: programs that read, edit, process and store transaction data.

Requirement 3

Popular entry–level systems include QuickBooks and Sage 50 Accounting.

EB-14

Requirements

1. Prepare headings for a sales journal. Journalize the transactions that should be recorded in the sales journal. (Round the sales discount to a whole dollar.) Assume the company uses the perpetual inventory system.

2. Total each column of the sales journal.

Solution:

Requirements 1 and 2

Sales Journal					Page 1
				Accounts Receivable DR	Cost of Goods Sold DR
Date	Invoice No	Customer Account Debited	Post. Ref.	Sales Revenue CR	Merchandise Inventory CR
2018					
Feb. 1	401	Cole Co.		1,050	860
20	402	Dump Co.		500	325
28		Totals		1,550	1,185

EB-15

Requirements

1. Prepare headings for a cash receipts journal. Journalize the transactions that should be recorded in the cash receipts journal.

2. Total each column of the cash receipts journal.

Solution:

Requirements 1 and 2

Cash Receipts Journal								Page 1
								Cost of Goods Sold DR
Date	Account Credited	Post. Ref.	Cash DR	Accounts Receivable CR	Sales Revenue CR	Sales Discounts Forfeited CR	Other Accounts CR	Merchandise Inventory CR
2018								
Feb. 6			950		950			750
12	Interest Revenue		170				170	
15	Cole Co.		1,050	1,050				
22			600		600			530
26	Office Supplies		150				150	
28	Dump Co.		500	500				
28	Totals		3,420	1,550	1,550		320	1,280

EB-16

Identify the missing information in the cash receipts journal for those transactions listed. There are no sales discounts. Also, total the columns in the cash receipts journal and show that total debits equal total credits.

Solution:

Cash Receipts Journal								Page 5
								Cost of Goods Sold DR
Date	Account Credited	Post. Ref.	Cash DR	Accounts Receivable CR	Sales Revenue CR	Sales Discounts Forfeited CR	Other Accounts CR	Merchandise Inventory CR
2018								
May 16	L. Ebert		110	110				
19	E. Loop		95	95				
24			320					250
30	T. Ross		65	65				
31	Totals		590	270				250

Debits:	Cash + Cost of Goods Sold
	$590 + $250 = $840
Credits:	Accounts Receivable + Sales Revenue + Sales Discounts
	Forfeited + Other Accounts + Merchandise Inventory
	$270 + $320 + $0 + $0 + $250 = $840

EB-17

Indicate whether each posting reference (a) through (k) should be a:

- Check mark (✓) for a posting to a customer account in the accounts receivable subsidiary ledger.
- Account number for a posting to an account in the general ledger. If so, give the account number.
- Letter (X) for an amount not posted.

Solution:

a.	110
b.	512
c.	115
d.	510
e.	X
f.	611/118
g.	✓
h.	✓
i.	125
j.	520
k.	✓

EB-18

Describe the three posted transactions.

Solution:

Date	Description
Nov. 9	From the sales journal, Leger Old Company recorded a sale on account to Josh Willow.
18	From the general journal, Leger Old Company issued a credit memo to Josh Willow. Josh Willow returned some goods or received an adjustment on goods purchased.
30	From the cash receipts journal, Leger Old Company received a cash payment from Josh Willow.

EB-19

Requirements

1. Prepare headings for a purchases journal. Journalize the transactions that should be recorded in the purchases journal. The company uses the perpetual inventory system.

2. Total each column of the purchases journal.

Solution:

Requirements 1 and 2

Purchases Journal									Page 1
							Other Accounts DR		
Date	Vendor Account Credited	Terms	Post. Ref.	Accounts Payable CR	Merchandise Inventory DR	Office Supplies DR	Account Title	Post. Ref.	Amount
2018									
Apr. 2	Vanderbilt Co.	3/10, n/60		2,400	2,400				
19	Downing Supplies	n/EOM		500		500			
24	Wilmington Sales	n/30		1,900	1,900				
30	Totals			4,800	4,300	500			

EB-20

Requirements

1. Prepare headings for a cash payments journal. Journalize the transactions that should be recorded in the cash payments journal.

2. Total each column of the cash payments journal.

Solution:

Requirements 1 and 2

Cash Payments Journal							Page 1
Date	Ck. No	Account Debited	Post. Ref.	Other Accounts DR	Accounts Payable DR	Merchandise Inventory CR	Cash CR
2018							
Apr. 5	820	Equipment		3,600			3,600
11	821	Merchandise Inventory		750			750
12	822	Vanderbilt Co.*			2,400	72	2,328
28	823	Prepaid Insurance		1,000			1,000
29	824	Rent Expense		1,250			1,250
30		Totals		6,600	2,400	72	8,928

*$2,400 × 3% = $72; $2,400 – $72 = $2,328

EB-21

Requirements

1. Total each column of the purchases journal.
2. Open four-column ledger accounts for Merchandise Inventory (118), Office Supplies (120), Equipment (150), and Accounts Payable (211). Post to these accounts from the purchases journal. Use dates and posting references in the accounts.
3. Open four-column accounts in the accounts payable subsidiary ledger for Fallon Equipment, Jell Supply, and Leap Tech. Post from the purchases journal. Use dates and posting references in the ledger accounts.
4. Balance the Accounts Payable control account in the general ledger with the total of the balances in the accounts payable subsidiary ledger.

Solution:

Requirement 1

Purchases Journal									**Page 7**
Date	**Vendor Account Credited**	**Terms**	**Post. Ref.**	**Accounts Payable CR**	**Merchandise Inventory DR**	**Office Supplies DR**	**Other Accounts DR: Account Title**	**Other Accounts DR: Post. Ref.**	**Other Accounts DR: Amount**
2018									
Sep. 2	Leap Tech	n/30		830	830				
5	Jell Supply	n/30		155		155			
13	Leap Tech	5/10, n/30		1,470	1,470				
26	Fallon Equipment	n/30		880			Equipment	150	880
30	Totals			3,335	2,300	155			880
				(211)	(118)	(120)			

Requirement 2

Merchandise Inventory **No. 118**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Sep. 30	P.7	2,300		2,300	

Office Supplies **No. 120**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Sep. 30	P.7	155		155	

Equipment **No. 150**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Sep. 26	P.7	880		880	

Accounts Payable **No. 211**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Sep. 30	P.7		3,335		3,335

Requirement 3

Accounts Payable—Fallon Equipment

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Sep. 26	P.7		880		880

Accounts Payable—Jell Supply

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Sep. 5	P.7		155		155

Accounts Payable—Leap Tech

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Sep. 2	P.7		830		830
13	P.7		1,470		2,300

Requirement 4

Vendor	**Balance**
Fallon Equipment	$880
Jell Supply	155
Leap Tech	2,300
Total	$3,335

The total of the vendor balances in the accounts payable subsidiary ledger agrees with the balance in Accounts Payable in the general ledger: $3,335.

EB-22

Describe the three posted transactions.

Solution:

Date	Description
Dec. 12	From the purchases journal, Frost Company made a purchase on account from Larry Carpenter.
20	From the general journal, Frost Company issued a debit memo to Leslie Carter for returned goods or an adjustment on damaged goods.
29	From the cash payments journal, Frost Company made a cash payment to Larry Carpenter.

EB-23

For each transaction listed, identify the recording error and indicate the journal that should have been used.

Solution:

a.	Cash payments are recorded in the **cash payments** journal.
b.	Adjusting entries are recorded in the **general** journal.
c.	Correct as recorded.
d.	Sales on account are recorded in the **sales** journal.
e.	Cash payments (by check or currency) are recorded in the **cash payments** journal.
f.	Debit memos are recorded in the **general** journal.
g.	Cash sales are recorded in the **cash receipts** journal.

PB-24A

Requirements

1. Use the appropriate journal to record the preceding transactions in a sales journal (omit the Invoice No. column), a cash receipts journal (omit the Sales Discounts Forfieted column).

2. Total each column of the sales journal and the cash receipts journal. Show that total debits equal total credits.

3. Show how postings would be made by writing the account numbers and check marks in the appropriate places in the journals.

Solution:

Requirements 1, 2 and 3

Sales Journal					**Page 1**
				Accounts Receivable DR	**Cost of Goods Sold DR**
Date	**Invoice No.**	**Customer Account Debited**	**Post. Ref.**	**Sales Revenue CR**	**Merchandise Inventory**
2018					
Jul. 2		Intel, Inc.	✓	1,500	200
9		A. B. Miller	✓	7,700	5,200
11		Speedy Electric	✓	5,400	3,350
15		William & Bill	✓	3,400	2,400
20		Speedy Electric	✓	500	250
25		Oscar Co.	✓	1,520	1,000
29		R. O. Bart	✓	200	100
31		Totals		20,220	12,500
				(12/41)	(51/15)

Debits:	Accounts Receivable + Cost of Goods Sold
	$20,220 + $12,500 = $32,720
Credits:	Sales Revenue + Merchandise Inventory
	$20,220 + $12,500 = $32,720

Cash Receipts Journal **Page 1**

Date	Account Credited	Post. Ref.	Cash DR	Accounts Receivable CR	Sales Revenue CR		Other Accounts CR	Cost of Goods Sold DR / Merchandise Inventory CR
2018								
Jul. 3	Office Supplies	16	80				80	
7			2,300		2,300			1,500
10	Land	19	10,000				10,000	
12	Intel, Inc.	✓	1,500	1,500				
14			2,600		2,600			1,700
21			980		980			640
22	A. B. Miller	✓	4,000	4,000				
25	William & Bill	✓	3,400	3,400				
27	Notes Receivable	13	5,000				5,000	
28			3,710		3,710			2,450
31	A. B. Miller	ü	2,700	2,700				
	Totals		36,270	11,600	9,590		15,080	6,290
			(11)	(12)	(41)		(X)	(51/15)

Debits:	Cash + Cost of Goods Sold
	$36,270 + $6,290 = $42,560
Credits:	Accounts Receivable + Sales Revenue + Other Accounts + Merchandise Inventory
	$11,600 + $9,590 + $15,080 + $6,290 = $42,560

PB-25A

Requirements

1. Shiny Lake Golf Shop records purchase returns in the general journal. Use the appropriate journal to record the transactions in a purchases journal, a cash payments journal (omit the Check No. column), and a general journal. The company uses the perpetual inventory system.

2. Total each column of the special journals. Show that total debits equal total credits in each special journal.

3. Show how postings would be made from the journals by writing the account numbers and check marks in the appropriate places in the journals.

Solution:

Requirements 1, 2 and 3

Purchases Journal									**Page 1**
Date	**Vendor Account Credited**	**Terms**	**Post. Ref.**	**Accounts Payable CR**	**Merchandise Inventory DR**	**Office Supplies DR**	**Other Accounts DR Account Title**	**Other Accounts DR Post. Ref.**	**Other Accounts DR Amount**
2018									
Dec. 2	Tomas	1/10, n/30	✓	4,500	4,500				
5	Right Supply	1/10, n/30	✓	440		440			
9	Ace Equipment	n/30	✓	6,600			Equipment	181	6,600
12	Callahan Golf	3/10, n/30	✓	4,000	4,000				
21	Dormer, Inc.	2/10, n/45	✓	3,400	3,400				
22	Office World, Inc.	n/30	✓	600		600			
31	Totals			19,540	11,900	1,040			6,600
				(211)	(131)	(171)			(X)

Debits:	Merchandise Inventory + Office Supplies + Other Accounts
	\$11,900 + \$1,040 + \$6,600 = \$19,540
Credits:	Accounts Payable
	\$19,540

Cash Payments Journal							Page 1
Date	Ck. No.	Account Debited	Post. Ref.	Other Accounts DR	Accounts Payable DR	Merchandise Inventory CR	Cash CR
2018							
Dec. 3		Rent Expense	564	2,300			2,300
8		Utilities Expense	583	580			580
11		Tomas[1]	✓		4,500	45	4,455
13		Merchandise Inventory	131	600			600
14		Prepaid Insurance	161	1,400			1,400
16		Right Supply[2]	✓		440		440
18		Utilities Expense	583	200			200
21		Callahan Golf[3]	✓		4,000	120	3,880
31		Dormer, Inc.[4]	✓		2,400	48	2,352
31		Totals		5,080	11,340	213	16,207
				(X)	(211)	(131)	(111)

1. $4,500 × 1% = $45; $4,500 – $45 = $4,455
2. Did not make payment within the discount period
3. $4,000 × 3% = $120; $4,000 – $120 = $3,880
4. $3,400 – $1,000 = $2,400; $2,400 × 2% = $48; $2,400 − $48 = $2,352

Debits:	Other Accounts + Accounts Payable
	$5,080 + $11,340 = $16,420
Credits:	Merchandise Inventory + Cash
	$213 + $16,207 = $16,420

Date	Accounts and Explanation	Post. Ref.	Debit	Credit
Dec. 10	Accounts Payable—Ace Supply	211/✓	6,600	
	Equipment	181		6,600
	Debit memo issued for returned equipment.			
26	Accounts Payable—Dormer, Inc.	211/✓	1,000	
	Merchandise Inventory	131		1,000
	Debit memo issued for purchase return.			

PB-26A

Requirements

1. Open four-column general ledger accounts using Tulsa's account numbers and balances as of May 1, 2018 that follow. All accounts have normal balances.

2. Open four-column accounts in the subsidiary ledgers with beginning balances as of May 1, if any. Accounts receivable subsidiary ledger—Balakrishnan Co., $1,700; Berkner Co., $0; M. O. Small, $0; and K. D. King, $0. Accounts payable subsidiary ledger—Henderson Co., $0; Magyar, Inc., $0; Silva Distributing, $0; and White

3. Enter the transactions in a sales journal (page 7), a cash receipts journal (page 5, omit Sales Discounts Forfeited column), a purchases journal (page 10), a cash payments journal (page 8), and a general journal (page 6), as appropriate.

4. Post daily to the accounts receivable subsidiary ledger and to the accounts payable subsidiary ledger.

5. Total each column of the special journals. Show that total debits equal total credits in each special journal. On May 31, post to the general ledger.

6. Prepare a trial balance as of May 31, 2018, to verify the equality of the general ledger. Balance the total of the customer balances in the accounts receivable subsidiary ledger against Accounts Receivable in the general ledger. Do the same for the accounts payable subsidiary ledger and Accounts Payable in the general ledger.

Solution:

Requirements 1 and 5

Cash **No. 111**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				15,000	
May 31	CR.5	11,475		26,475	
31	CP.8		11,463	15,012	

Accounts Receivable **No. 112**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				1,700	
31	S.7	11,450		13,150	
31	CR.5		8,200	4,950	

Merchandise Inventory **No. 114**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				7,000	
May 10	CP.8	1,000		8,000	
29	J.6		575	7,425	
31	S.7		5,450	1,975	
31	CR.5		350	1,625	
31	P.10	5,575		7,200	
31	CP.8		87	7,113	

Office Supplies **No. 116**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				600	
May 24	CR.5		125	475	
31	P.10	500		975	

Prepaid Insurance **No. 117**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				0	
May 22	CP.8	1,400		1,400	

Furniture **No. 151**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				2,200	
May 5	CP.8	2,950		5,150	
22	P.10	500		5,650	

Accounts Payable **No. 211**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.					900
May 29	J.6	575			325
31	P.10		6,575		6,900
31	CP.8	3,400			3,500

Common Stock **No. 311**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.					10,000

Retained Earnings **No. 314**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.					11,400

Sales Revenue **No. 411**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.					7,800
May 31	S.7		11,450		19,250
31	CR.5		1,800		21,050

Interest Revenue **No. 419**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.					1,300
May 8	CR.5		1,350		2,650

Cost of Goods Sold **No. 511**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				2,800	
31	S.7	5,450		8,250	
31	CR.5	350		8,600	

Salaries Expense **No. 531**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				1,900	
May 31	CP.8	2,250		4,150	

Utilities Expense **No. 541**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				200	
May 25	CP.8	550		750	

Requirements 2 and 4

Accounts Receivable—Balakrishnan Co.

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				1,700	

Accounts Receivable—Berkner Co.

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				0	
May 9	S.7	5,700		5,700	
19	CR.5		5,700	0	
29	S.7	2,400		2,400	

Accounts Receivable—K. D. King

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				0	
May 2	S.7	2,200		2,200	
12	CR.5		2200	0	
18	S.7	300		300	
31	CR.5		300	0	

Accounts Receivable—M. O. Small

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				0	
May 15	S.7	850		850	

Accounts Payable—Henderson Co.

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.					0
May 3	P.10		2,900		2,900
13	CP.8	2,900			0
22	P.10		500		500

Accounts Payable—Magyar, Inc.

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.					0
May 13	P.10		500		500
28	P.10		575		1,075
29	J.6	575			500
30	CP.8	500			0

Accounts Payable—Silva Distributing

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.					0
May 20	P.10		2,100		2,100

Accounts Payable—White Co.

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.					900

Requirements 3, 4, 5 and 6

Sales Journal — **Page 7**

Date	Invoice No.	Customer Account Debited	Post. Ref.	Accounts Receivable DR / Sales Revenue CR	Cost of Goods Sold DR / Merchandise Inventory CR
2018					
May 2	913	K. D. King	✓	2,200	1500
9	914	Berkner Co.	✓	5,700	2,000
15	915	M. O. Small	✓	850	400
18	916	K. D. King	✓	300	150
29	917	Berkner Co.	✓	2,400	1400
31		Totals		11,450	5,450
				(112/411)	(511/114)

Debits:	Accounts Receivable + Cost of Goods Sold
	$11,450 + $5,450 = $16,900
Credits:	Sales Revenue + Merchandise Inventory
	$11,450 + $5,450 = $16,900

Cash Receipts Journal — **Page 5**

Date	Account Credited	Post. Ref.	Cash DR		Accounts Receivable CR	Sales Revenue CR	Other Accounts	Cost of Goods Sold DR / Merchandise Inventory CR
2018								
May 5			1,800			1,800		350
8	Interest Revenue	419	1,350				1,350	
12	K. D. King	✓	2,200		2,200			
19	Berkner Co.	✓	5,700		5,700			
24	Office Supplies	116	125				125	
31	K. D. King	✓	300		300			
31	Totals		11,475		8,200	1,800	1,475	350
			(111)		(112)	(411)	(X)	(511/114)

Debits:	Cash + Cost of Goods Sold
	$11,475 + $350 = $11,825
Credits:	Accounts Receivable + Sales Revenue + Other Accounts + Merchandise Inventory
	$8,200 + $1,800 + $1,475 + $350 = $11,825

Purchases Journal									Page 10
Date	Vendor Account Credited	Terms	Post. Ref.	Accounts Payable CR	Merchandise Inventory DR	Office Supplies DR	Other Accounts DR		
							Account	Post. Ref.	Amount
2018									
May 3	Henderson Co.	3/10, n/60	✓	2,900	2,900				
13	Magyar, Inc.	n/EOM	✓	500		500			
20	Silva Distributing	n/30	✓	2,100	2,100				
22	Henderson Co.	3/10, n/60	✓	500			Furniture	151	500
28	Magyar, Inc.	2/10, n/60	✓	575	575				
31	Totals			6,575	5,575	500			500
				(211)	(114)	(116)			(X)

Debits:	Merchandise Inventory + Office Supplies + Other Accounts
	$5,575 + $500 + $500 = $6,575
Credits:	Accounts Payable
	$6,575

Cash Payments Journal							Page 8
Date	Ck. No.	Account Debited	Post. Ref.	Other Accounts DR	Accounts Payable DR	Merchandise Invento	Cash CR
2018							
May 5	532	Furniture	151	2,950			2,950
10	533	Merchandise Inventory	114	1,000			1,000
13	534	Henderson Co.[1]	✓		2,900	87	2,813
22	535	Prepaid Insurance	117	1,400			1,400
25	536	Utilities Expense	550	550			550
30	537	Magyar, Inc.	✓		500		500
31	538	Salaries Expense	531	2,250			2,250
31		Totals		8,150	3,400	87	11,463
				(X)	(211)	(114)	(111)

Debits:	Other Accounts + Accounts Payable
	$8,150 + $3,400 = $11,550
Credits:	Merchandise Inventory + Cash
	$87 + $11,463 = $11,550

General Journal				Page 6
Date	Accounts and Explanation	Post. Ref.	Debit	Credit
29	Accounts Payable—Magyar, Inc.	211/✓	575	
	Merchandise Inventory	114		575
	Issued debit memo for purchase return.			

Requirement 6

	TULSA COMPUTER SECURITY **Trial Balance** **May 31, 2018**		
Acct. No.	**Account Name**	**Debit**	**Credit**
111	Cash	$15,012	
112	Accounts Receivable	4,950	
114	Merchandise Inventory	7,113	
116	Office Supplies	975	
117	Prepaid Insurance	1,400	
151	Furniture	5,650	
211	Accounts Payable		$3,500
311	Common Stock		10,000
314	Retained Earnings		11,400
411	Sales Revenue		21,050
419	Interest Revenue		2,650
511	Cost of Goods Sold	8,600	
531	Salaries Expense	4,150	
541	Utilities Expense	750	
	Totals	$ 48,600	$ 48,600

Accounts Receivable Subsidiary Ledger

Customer	Balance
Balakrishnan Co.	$1,700
Berkner Co.	2,400
K. D. King	0
M. O. Small	850
Total	$ 4,950

The total of the customer balances in the accounts receivable subsidiary ledger agrees with the balance in Accounts Receivable in the general ledger: $4,950.

Accounts Payable Subsidiary Ledger

Vendor	Balance
Henderson Co.	$500
Magyar, Inc.	0
Silva Distributing	2,100
White Co.	900
Total	$ 3,500

The total of the vendor balances in the accounts payable subsidiary ledger agrees with the balance in Accounts Payable in the general ledger: $3,500.

PB-27B

Requirements

1. Use the appropriate journal to record the preceding transactions in a sales journal (omit the Invoice No. column) and a cash receipts journal (omit the Sales Discounts Forfeited column).

2. Total each column of the sales journal and the cash receipts journal. Determine that total debits equal total credits.

3. Show how postings would be made from the journals by writing the account numbers and check marks in the appropriate places in the journals.

Solution:

Requirements 1, 2 and 3

Sales Journal					Page 1
Date	Invoice No.	Customer Account Debited	Post. Ref.	Accounts Receivable DR / Sales Revenue CR	Cost of Goods Sold DR / Merchandise Inventory CR
2018					
Nov. 2		Intelysis, Inc.	✓	2,200	400
8		A. Z. Morris	✓	7,500	5,000
11		Sloan Electric	✓	5,000	3,450
15		West and Michael	✓	3,000	2,200
19		Sloan Electric	✓	700	200
22		Olivia Co.	✓	1,510	980
27		R. A. Brown	✓	230	110
30		Totals		20,140	12,340
				(12/41)	(51/15)

Debits:	Accounts Receivable + Cost of Goods Sold
	$20,140 + $12,340 = $32,480
Credits:	Sales Revenue + Merchandise Inventory
	$20,140 + $12,340 = $32,480

Cash Receipts Journal								Page 1
Date	Account Credited	Post. Ref.	Cash DR		Accounts Receivable CR	Sales Revenue CR	Other Accounts CR	Cost of Goods Sold DR Merchandise Inventory CR
2018								
Nov. 6	Office Supplies	16	85				85	
6			2,400			2,400		1,400
9	Land	19	9,000				9,000	
11	Intelysis, Inc.	✓	2,200		2200			
13			2,200			2,200		1,750
20			940			940		640
21	A. Z. Morris	✓	4,400		4,400			
22	West and Michael		3,000		3,000			
25	Notes Receivable	13	5,800				5,800	
27			3,780			3,780		2,430
30	A. Z. Morris		2,200		2,200			
30	Totals	✓	36,005		11,800	9,320	14,885	6,220
			(11)		(12)	(41)	(X)	(51/15)

*$2,200 × 2% = $44; $2,200 – $44 = $2,156
**$3,600 × 2% = $72; $3,600 – $72 = $3,528

Debits:	Cash + Cost of Goods Sold
	$36,005 + $6,220 = $42,225
Credits:	Accounts Receivable + Sales Revenue + Other Accounts + Merchandise Inventory
	$11,800 + $9,320 + $14,885 + $6,220 = $42,225

PB-28B

Requirements

1. Use the appropriate journal to record the preceding transactions in a purchases journal, a cash payments journal (omit the Check No. column), and a general journal.
   Finnish Lake Golf Shop records purchase returns in the general journal.
   The company uses the perpetual inventory system.

2. Total each column of the special journals. Show that total debits equal total credits in each special journal.

3. Show how postings would be made from the journals by writing the account numbers and check marks in the appropriate places in the journals.

Solution:

Requirements 1, 2 and 3

Purchases Journal									**Page 1**
				Accounts Payable CR	**Merchandise Inventory**	**Office Supplies DR**	**Other Accounts DR**		
Date	**Vendor Account Credited**	**Terms**	**Post. Ref.**				**Account Title**	**Post. Ref.**	**Amount**
2018									
Dec. 2	Tighe	3/10, n/30	✓	4,100	4,100				
5	Rapid Supply	3/10, n/30	✓	470		470			
9	A-1 Equpment	n/30	✓	6,900			Equipment	181	6,900
12	Crystal Golf	1/10, n/30	✓	4,900	4,900				
21	Devin, Inc.	1/10, n/45	✓	3,000	3,000				
22	Office Stuff, Inc.	n/30	✓	100		100			
31	Totals			19,470	12,000	570			6,900
				(211)	(131)	(171)			(X)

Debits:	Merchandise Inventory + Office Supplies + Other Accounts
	$12,000 + $570 + $6,900 = $19,470
Credits:	Accounts Payable
	$19,470

Cash Payments Journal							**Page 1**
Date	**Ck. No.**	**Account Debited**	**Post. Ref.**	**Other Accounts DR**	**Accounts Payable DR**	**Merchandise Inventory CR**	**Cash CR**
2018							
Dec. 3		Rent Expense	564	2,200			2,200
8		Utilities Expense	583	510			510
11		Tighe[1]	✓		4,100	123	3,977
13		Merchandise Inventory	131	660			660
14		Prepaid Insurance	161	1,200			1,200
16		Rapid Supply[2]	✓		470		470
18		Utilities Expense	583	500			500
21		Crystal Golf[3]	✓		4,900	49	4,851
31		Devin, Inc.[4]	✓		2,000	20	1,980
31		Totals		5,070	11,470	192	16,348
				(X)	(211)	(131)	(111)

1. $4,100 × 3% = $123; $4,100 – $123 = $3,977
2. Did not make payment within the discount period
3. $4,900 × 1% = $49; $4,900 – $49 = $4,851
4. $3,000 – $1,000 = $2,000; $2,000 × 1% = $20; $2,000 – $20 = $1,980

Debits:	Other Accounts + Accounts Payable
	$5,070 + $11,470 = $16,540
Credits:	Merchandise Inventory + Cash
	$192 + $16,348 = $16,540

PB-29B

Requirements

1. Open four-column general ledger accounts using Atlanta Computer Security's account numbers and balances as of March 1, 2018, that follow. All accounts have

2. Open four-column accounts in the subsidiary ledgers with beginning balances as of March 1, if any. Accounts receivable subsidiary ledger: Arrundel Co., $1,900; Common Co., $0; L. E. Kingston, $0; and Suarez, $0. Accounts payable subsidiary ledger: High, $0; Mann Corp, $0; James Swenson, $0; and Young Co., $900.

3. Enter the transactions in a sales journal (page 8), a cash receipts journal (page 3, omit Sales Discounts Forfeited column), a purchases journal (page 6), a cash payments

4. Post daily to the accounts receivable subsidiary ledger and to the accounts payable subsidiary ledger.

5. Total each column of the special journals. Show that total debits equal total credits in each special journal. On March 31, post to the general ledger.

6. Prepare a trial balance as of March 31, 2018, to verify the equality of the general ledger. Balance the total of the customer account balances in the accounts receivable ledger against Accounts Receivable in the general ledger. Do the same for the accounts payable ledger and Accounts Payable in the general ledger.

Solution:

Requirements 1 and 5

Cash **No. 111**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				15,800	
Mar. 31	CR.3	11,450		27,250	
31	CP.9		10,525	16,725	

Accounts Receivable **No. 112**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				1,900	
31	S.8	12,600		14,500	
31	CR.3		9,100	5,400	

Merchandise Inventory **No. 114**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				6,500	
Mar. 10	CP.9	1,400		7,900	
29	J.4		550	7,350	
31	S.8		4,850	2,500	
31	CR.3		300	2,200	
31	P.6	5,250		7,450	
31	CP.9		75	7,375	

Office Supplies **No. 116**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				600	
Mar. 24	CR.3		100	500	
31	P.6	350		850	

Prepaid Insurance **No. 117**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				0	
Mar. 22	CP.9	1,800		1,800	

Furniture **No. 151**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				2,000	
Mar.22	P.6	2,450		4,450	
5	CP.9	400		4,850	

Accounts Payable **No. 211**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.					900
Mar. 29	J.4	550			350
Mar. 31	P.6		6,000		6,350
31	CP.9	2,850			3,500

Common Stock **No. 311**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.					14,000

Retained Earnings **No. 314**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.					6,600

Sales Revenue **No. 411**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.					7,600
Mar. 31	S.8		12,600		20,200
31	CR.3		1,100		21,300

Interest Revenue **No. 419**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.					1,400
Mar. 8	CR.3		1,150		2,550

Cost of Goods Sold **No. 511**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				2,100	
Mar. 31	S.8	4,850		6,950	
31	CR.3	300		7,250	

Salaries Expense **No. 531**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				1,300	
Mar. 31	CP.9	1,550		2,850	

Utilities Expense **No. 541**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				300	
Mar.25	CP.9	550		850	

Requirements 2 and 4

Accounts Receivable—Arrundel Co.

Date	Post. Ref.	Debit	Credit	Balance	
				Debit	Credit
Bal.				1,900	

Accounts Receivable—Common Co.

Date	Post. Ref.	Debit	Credit	Balance	
				Debit	Credit
Bal.				0	
Mar. 9	S.8	5,700		5,700	
19	CR.3		5,700	0	
29	S.8	2,800		2,800	

Accounts Receivable—Suarez Co.

Date	Post. Ref.	Debit	Credit	Balance	
				Debit	Credit
Bal.				0	
Mar. 15	S.8	700		700	

Accounts Receivable—L. E. Kingston

Date	Post. Ref.	Debit	Credit	Balance	
				Debit	Credit
Bal.				0	
Mar. 2	S.8	3,000		3,000	
12	CR.3		3,000	0	
18	S.8	400		400	
31	CR.3		400	0	

Accounts Payable—High

Date	Post. Ref.	Debit	Credit	Balance	
				Debit	Credit
Bal.					0
Mar. 3	P.6		2,500		2,500
13	CP.9	2,500			0
22	P.6		400		400

Accounts Payable—Mann Corp.

Date	Post. Ref.	Debit	Credit	Balance	
				Debit	Credit
Bal.					0
Mar. 13	P.6		350		350
28	P.6		550		900
29	J.4	550			350
30	CP.9	350			0

Accounts Payable—James Swenson

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.					0
Mar. 20	P.6		2,200		2,200

Accounts Payable—Young Co.

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.					900

Requirements 3, 4, 5 and 6

Sales Journal **Page 8**

Date	Invoice No.	Customer Account Debited	Post. Ref.	Accounts Receivable DR / Sales Revenue CR	Cost of Goods Sold DR / Merchandise Inventory CR
2018					
Mar. 2	191	L. E. Kingston	✓	3,000	800
9	192	Common Co.	✓	5,700	2,200
15	193	Suarez Co.	✓	700	250
18	194	L. E. Kingston	✓	400	200
29	195	Common Co.	✓	2,800	1,400
31		Totals		12,600	4,850
				(112/411)	(511/114)

Debits:	Accounts Receivable + Cost of Goods Sold
	$12,600 + $4,850 = $17,450
Credits:	Sales Revenue + Merchandise Inventory
	$12,600 + $4,850 = $17,450

Cash Receipts Journal **Page 3**

Date	Account Credited	Post. Ref.	Cash DR		Accounts Receivable CR	Sales Revenue CR	Other Accounts CR	Cost of Goods Sold DR / Merchandise Inventory CR
2018								
Mar. 4			1,100			1,100		300
8	Interest Revenue	419	1,150				1,150	
12	L. E. Kingston	✓	3,000		3,000			
19	Common Co.	✓	5,700		5,700			
24	Office Supplies	116	100				100	
31	L. E. Kingston	✓	400		400			
31	Totals		11,450		9,100	1,100	1,250	300
			(111)		(112)	(411)	(X)	(511/114)

Debits:	Cash + Cost of Goods Sold
	$11,450 + $300 = $11,750
Credits:	Accounts Receivable + Sales Revenue + Other Accounts + Merchandise Inventory
	$9,100 + $1,100 + $1,250 + $300 = $11,750

Purchases Journal — Page 6

Date	Vendor Account Credited	Terms	Post. Ref.	Accounts Payable CR	Merchandise Inventory DR	Office Supplies DR	Other Accounts DR Account Title	Other Accounts DR Post. Ref.	Other Accounts DR Amount
2018									
Mar. 3	High	3/10, n/60	✓	2,500	2,500				
13	Mann Corp.	n/EOM	✓	350		350			
20	James Swenson	n/30	✓	2,200	2,200				
22	High	3/10, n/60	✓	400			Furniture	151	400
28	Mann Corp.	2/10, n/30	✓	550	550				
31	Totals			6,000	5,250	350			400
				(211)	(114)	(116)			(X)

Debits:	Merchandise Inventory + Office Supplies + Other Accounts
	$5,250 + $350 + $400 = $6,000
Credits:	Accounts Payable
	$6,000

Cash Payments Journal — Page 9

Date	Ck. No.	Account Debited	Post. Ref.	Other Accounts DR	Accounts Payable DR	Merchandise Inventory CR	Cash CR
2018							
Mar. 5	473	Furniture	151	2,450			2,450
10	474	Merchandise Inventory	114	1,400			1,400
13	475	High[1]	✓		2,500	75	2,425
22	476	Prepaid Insurance	117	1,800			1,800
25	477	Utilities Expense	541	550			550
30	478	Mann Corp.	✓		350		350
31	479	Salaries Expense	531	1,550			1,550
31		Totals		7,750	2,850	75	10,525
				(X)	(211)	(114)	(111)

1. $2,500 × 3% = $75; $2,500 – $75 = $2,425

Debits:	Other Accounts + Accounts Payable
	$7,750 + $2,850 = $10,600
Credits:	Merchandise Inventory + Cash
	$75 + $10,525 = $10,600

General Journal				Page 4
Date	Accounts and Explanation	Post.Ref.	Debit	Credit
29	Accounts Payable—Mann Corp.	211/✓	550	
	Merchandise Inventory	114		550
	Issued debit memo for purchase return.			

Requirement 6

ATLANTIC COMPUTER SECURITY Trial Balance March 31, 2018			
Acct. No.	Account Name	Debit	Credit
111	Cash	$16,725	
112	Accounts Receivable	5,400	
114	Merchandise Inventory	7,375	
116	Office Supplies	850	
117	Prepaid Insurance	1,800	
151	Furniture	4,850	
211	Accounts Payable		$3,500
311	Common Stock		14,000
314	Retained Earnings		6,600
411	Sales Revenue		21,300
419	Interest Revenue		2,550
511	Cost of Goods Sold	7,250	
531	Salaries Expense	2,850	
541	Utilities Expense	850	
	Totals	$ 47,950	$ 47,950

Accounts Receivable Subsidiary Ledger

Customer	Balance
Arrundel Co.	$ 1,900
Common Co.	2,800
L. E. Kingston	0
Suarez	700
Total	$ 5,400

The total of the customer balances in the accounts receivable subsidiary ledger agrees with the balance in Accounts Receivable in the general ledger: $5,400.

Accounts Payable Subsidiary Ledger

Vendor	Balance
High	$400
Mann Corp.	0
James Swenson	2,200
Young Co.	900
Total	$ 3,500

The total of the vendor balances in the accounts payable subsidiary ledger agrees with the balance in Accounts Payable in the general ledger: $3,500.

PB-30

Requirements

1. Enter the transactions in a sales journal (page 2), a cash receipts journal (page 5, omit Sales Discounts Forfeited column), a purchases journal (page 7), a cash
2. Total each column of the special journals. Show that total debits equal total credits in each special journal.

Solution:

Requirements 1 and 2

Sales Journal				Page 1
Date	Customer Account Debited	Post. Ref.	Accounts Receivable DR / Sales Revenue CR	Cost of Goods Sold DR / Merchandise Inventory CR
2019				
Jan. 10			388[1]	200
21			588[2]	220
30			2,695[3]	1300
31	Totals		3,671	1720

1. 40 × $10 = $400; $400 × 3% = $12; $400 – $12 = $388
2. 260 × $10 = $600; $600 × 2% = $12; $600 – $12 = $588
3. 275 × $10 = $2,750; $2,750 × 2% = $55; $2,750 – $55 = $2,695

Debits:	Accounts Receivable + Cost of Goods Sold
	$3,671 + $1,720 = $5,391
Credits:	Sales Revenue + Merchandise Inventory
	$3,671 + $1,720 = $5,391

Cash Receipts Journal								Page 1
Date	Account Credited	Post. Ref.	Cash DR		Accounts Receivable CR	Sales Revenue CR	Other Accounts CR	Cost of Goods Sold DR / Merchandise Inventory CR
2019								
Jan. 2			60			60		24
8	Merchandise Inv.		16				16	
12	Totals		388		388			
23			588		588			
31			2,695		2,695			
31	Totals		3,747		3,671	60	16	24

Debits:	Cash + Cost of Goods Sold
	$3,747 + $24 = $3,771
Credits:	Accounts Receivable + Sales Revenue + Other Accounts + Merchandise Inventory
	$3,671 + $60 + $16 + $24 = $3,771

Purchases Journal									**Page 1**
							Other Accounts DR		
Date	**Vendor Account Credited**	**Terms**	**Post. Ref.**	**Accounts Payable CR**	**Merchandise Inventory DR**	**Office Supplies DR**	**Account Title**	**Post. Ref.**	**Amount**
2019									
Jan. 3		2/10, n/30		250	250				
14		4/15, n/30		400	400				
25		2/10, n/30		1600	1600				
31	Totals			2,250	2,250				

Debits:	Merchandise Inventory + Office Supplies + Other Accounts
	$2,250 + $0 + $0 = $2,250
Credits:	Accounts Payable
	$2,250

Cash Payments Journal							**Page 1**
Date	**Ck. No.**	**Account Debited**	**Post. Ref.**	**Other Accounts DR**	**Accounts Payable DR**	**Merchandise Inventory CR**	**Cash CR**
2019							
Jan. 1		Merchandise Inv.		40			40
7					250	5	245
20					350	14	336
27		Merchandise Inv.		48			48
29					1,600	32	1,568
31		Totals		88	2,200	51	2,237

1. $250 × 2% = $5; $250 – $5 = $245
2. $400 − $50 = $350; 350 × 4% = $14; $350 – $14 = $336
3. $1,600 × 2% = $32; $1,600 – $32 = $1,568

Debits:	Other Accounts + Accounts Payable
	$88 + $2,200 = $2,288
Credits:	Merchandise Inventory + Cash
	$51 + $2,237 = $2,288

General Journal				**Page 1**
Date	**Accounts and Explanation**	**Post. Ref.**	**Debit**	**Credit**
Jan. 18	Accounts Payable		50	
	Merchandise Inventory			50

PB-31

Requirements

1. Use the appropriate journal to record the preceding transactions in a sales journal (omit the Invoice No. column), a cash receipts journal (omit Sales Discounts Forfeited column), a purchases journal, a cash payments journal (omit the Check No. column), and a general journal.

2. Total each column of the special journals. Show that total debits equal total credits in each special journal.

Solution:

Requirements 1 and 2

Sales Journal				Page 1
			Accounts Receivable DR	Cost of Goods Sold DR
Date	Customer Account Debited	Post. Ref.	Sales Revenue CR	Merchandise Inventory CR
2018				
Dec. 11	Happy Maids		5,500	2,000
	Bridget, Inc.*		6,435	2,022
31	Totals		11,935	4,022
	*$6,500 × 1% = $65; $6,500 – $65 = $6,435			

Debits:	Accounts Receivable + Cost of Goods Sold
	$11,935 + $4,022 = $15,957
Credits:	Sales Revenue + Merchandise Inventory
	$11,935 + $4,022 = $15,957

Cash Receipts Journal								Page 1
								Cost of Goods Sold DR
Date	Account Credited	Post. Ref.	Cash DR		Accounts Receivable CR	Sales Revenue CR	Other Accounts CR	Merchandise Inventory CR
2018								
Dec. 21	Happy Maids		4,400		4,400			
31	Bridget Inc.		6,435		6,435			
31	Totals		10,835		10,835	0	0	0

Debits:	Cash + Cost of Goods Sold
	$10,835 + $0 = $10,835
Credits:	Accounts Receivable + Sales Revenue + Other Accounts + Merchandise Inventory
	$10,835 + $0 = $10,835

Purchases Journal									Page 1
Date	Vendor Account Credited	Terms	Post. Ref.	Accounts Payable CR	Merchandise Inventory	Office Supplies DR	Other Accounts DR: Account Title	Other Accounts DR: Post. Ref.	Other Accounts DR: Amount
2018									
Dec. 2	Sparkle Co.	5/10, n/20		4,000	4,000				
5	Borax	4/10, n/30		6,000	6,000				
31	Totals			10,000	10,000	0			0

Debits:	Merchandise Inventory + Office Supplies + Other Accounts
	$10,000 + $0 + $0 = $10,000
Credits:	Accounts Payable
	$10,000

Cash Payments Journal							Page 1
Date	Ck. No.	Account Debited	Post. Ref.	Other Accounts DR	Accounts Payable DR	se Inventory CR	CR
2018							
Dec. 9		Borax[1]			6,000	228	5,772
12		Sparkle[2]			2,800	140	2,660
29		Utilities Expense		550			550
30		Sales Comn. Exp.		214			214
31		Totals		764	8,800	368	9,196
				(X)	(211)	(114)	(111)

1. ($6,000 – $300) = $5,700 × 4% = $228; $6,000 – $228 = $5,772
2. ($4,000 – $1,200) = $2,800 × 5% = $140; $2,800 – $140 = $2,660

Debits:	Other Accounts + Accounts Payable
	$764 + $8,800 = $9,564
Credits:	Merchandise Inventory + Cash
	$368 + $9,196 = $9,564

General Journal				Page 1
Date	Accounts and Explanation	Post.Ref.	Debit	Credit
Dec. 7	Accounts Payable—Sparkle Co.		1,200	
	Merchandise Inventory			1,200
15	Refunds Payable		1,100	
	Accounts Receivable—Happy Maids			1,100
	Merchandise Inventory		400	
	Estimated Returns Inventory			400

Comprehensive Problem for Appendix B

Requirements

1. Open these four-column accounts with their account numbers and July 31 balances in the various ledgers.

2. Journalize the August transactions using a sales journal (page 4), a cash receipts journal (page 11, omit Sales Discounts Forfeited column), a purchases journal (page 8), a cash payments journal (page 5), and a general journal (page 9).

3. Post daily to the accounts receivable subsidiary ledger and the accounts payable subsidiary ledger. On August 31, post to the general ledger.

4. Prepare an unadjusted trial balance for the month ended August 31.

5. Journalize and post the following adjusting entries:
   a. Office supplies on hand, $1,000.
   b. Prepaid insurance expired, $350.
   c. Depreciation expense on furniture, $250.
   d. Accrued salaries expense, $1,060.

6. Prepare an adjusted trial balance.

7. Prepare a multistep income statement, statement of owner's equity, and classified balance sheet.

8. Journalize closing entries and post.

9. Prepare a post-closing trial balance.

Solution:

Requirements 1 and 3

Cash **No. 101**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				5,020	
Aug. 31	CR.11	8,715		13,735	
31	CP.5		9,956	3,779	

Accounts Receivable **No. 102**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				22,490	
Aug. 31	S.4	11,800		34,290	
31	CR.11		7,495	26,795	

Merchandise Inventory **No. 105**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				41,300	
19	CP.5	850		42,150	
30	CR.11		850	41,300	
31	P.8	9,400		50,700	
31	S.4		3540	47,160	
31	CR.11		111	47,049	
31	CP.5		14	47,035	

Office Supplies **No. 109**

Date	Post. Ref.	Debit	Credit	Balance	
				Debit	Credit
Bal.				1,680	
Aug. 5	CP.5	730		2,410	
31	P.8	240		2,650	
Adj.	J.9		1650	1,000	

Prepaid Insurance **No. 117**

Date	Post. Ref.	Debit	Credit	Balance	
				Debit	Credit
Bal.				2,600	
Adj.			350	2,250	

Furniture **No. 160**

Date	Post. Ref.	Debit	Credit	Balance	
				Debit	Credit
Bal.				37,000	
Aug. 22	P.8	510		37,510	

Accumulated Depreciation—Furniture **No. 161**

Date	Post. Ref.	Debit	Credit	Balance	
				Debit	Credit
Bal.					10,000
Adj.	J.9		250		10,250

Accounts Payable **No. 201**

Date	Post. Ref.	Debit	Credit	Balance	
				Debit	Credit
Bal.					12,700
Aug. 31	P.8		10,150		22,850
31	CP.5	3,900			18,950

Salaries Payable **No. 204**

Date	Post. Ref.	Debit	Credit	Balance	
				Debit	Credit
Bal.					1,300
Aug. 2	CP.5	1,300			0
Adj.	J.9		1,060		1,060

Notes Payable, Long-term **No. 220**

Date	Post. Ref.	Debit	Credit	Balance	
				Debit	Credit
Bal.					25,000

Common Stock **No. 301**

Date	Post. Ref.	Debit	Credit	Balance	
				Debit	Credit
Bal.					20,000

Retained Earnings **No. 305**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.					41,090
Clo.	J.9		2,619		43,709
Clo.	J.9	600			43,109

Dividends **No. 310**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				0	
Aug. 31	CP.5	600		600	
Clo.	J.9		600	0	

Income Summary **No. 400**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.					0
Clo.	J.9		12,170		12,170
Clo.	J.9	9,551			2,619
Clo.	J.9	2,619			0

Sales Revenue **No. 401**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.					0
Aug. 31	S.4		11,800		11,800
31	CR.11		370		12,170
Clo.	J.9	12170			0

Cost of Goods Sold **No. 501**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				0	
Aug. 31	S.4	3,540		3,540	
31	CR.11	111		3,651	
Clo.	J.9		3,651	0	

Salaries Expense **No. 510**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				0	
Aug. 16	CP.5	1,290		1,290	
Adj.	J.9	1,060		2,350	
Clo.	J.9		2,350	0	

Rent Expense **No. 513**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				0	
Aug. 1	CP.5	1,300		1,300	
Clo.	J.9		1,300	0	

Depreciation Expense—Furniture **No. 514**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				0	
Adj.	J.9	250		250	
Clo.	J.9		250	0	

Insurance Expense **No. 516**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				0	
Adj.	J.9	350		350	
Clo.	J.9		350	0	

Supplies Expense **No. 519**

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				0	
Adj.	J.9	1,650		1,650	
Clo.	J.9		1650	0	

Subsidiary Ledgers

Accounts Receivable—Friend Co.

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				2,400	
Aug. 4	CR.11		2,400	0	
Aug. 23	S.4	9,000		9,000	

Accounts Receivable—R.T. Loeb

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				0	
Aug. 2	S.4	700		700	
12	CR.11		700	0	

Accounts Receivable—Parker Inc.

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				11,300	

Accounts Receivable—K.D. Sanders

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.				8,790	
Aug. 7	S.4	2,100		10,890	
24	CR.11		4,395	6,495	

Accounts Payable—Bradford Corp.

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.					0
Aug. 22	P.8		510		510

Accounts Payable—Filter Co.

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.					12,700
Aug. 8	CP.5	2,500			10,200
26	P.8		240		10,440

Accounts Payable—Goodner Inc.

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.					0
Aug. 3	P.8		1,400		1,400
11	CP.5	1,400			0

Accounts Payable—Seacrest Supply

Date	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
Bal.					0
Aug. 31	P.8		8,000		8,000

Requirements 2, 3

Sales Journal — Page 4

Date	Invoice No.	Customer Account Debited	Post. Ref.	Accounts Receivable DR / Sales Revenue CR	Cost of Goods Sold DR / Merchandise Inventory CR
Aug. 2	503	R. T. Loeb	✓	700	210
7	504	K. D. Sanders	✓	2,100	630
23	505	Friend Co.	✓	9,000	2,700
31		Totals		11,800	3,540
				(102/401)	(501/105)

Debits:	Accounts Receivable + Cost of Goods Sold
	$11,800 + $3,540 = $15,340
Credits:	Sales Revenue + Merchandise Inventory
	$11,800 + $3,540 = $15,340

Cash Receipts Journal — Page 11

Date	Account Credited	Post. Ref.	Cash DR		Accounts Receivable CR	Sales Revenue CR	Other Accounts CR	Cost of Goods Sold DR / Merchandise Inventory CR
Aug. 4	Friend Co.	✓	2,400		2,400			
4			370			370		111
12	R. T. Loeb	✓	700		700			
24	K. D. Sanders	✓	4,395		4,395			
30	Merchandise Inventor	105	850				850	
31	Totals		8,715		7,495	370	850	111
			(101)		(102)	(401)	(X)	(501/105)

Debits:	Cash + Cost of Goods Sold
	$8,715 + $111 = $8,826
Credits:	Accounts Receivable + Sales Revenue + Other Accounts + Merchandise Inventory
	$7,495 + $370 + $850 + $111 = $8,826

Purchases Journal									Page 8
							Other Accounts DR		
Date	Vendor Account Credited	Terms	Post. Ref.	Accounts Payable CR	Merchandise Inventory DR	Office Supplies DR	Account Title	Post. Ref.	Amount
Aug. 3	Goldner Inc.	1/15, n/60	✓	1,400	1,400				
22	Bradford Corp.	3/15, n/60	✓	510			Furniture	160	510
26	Filter Co.	2/10, n/30	✓	240		240			
31	Seacrest Supply	1/10, n/30	✓	8,000	8,000				
31	Totals			10,150	9,400	240			510
				(201)	(105)	(109)			(X)

Debits:	Merchandise Inventory + Office Supplies + Other Accounts
	$9,400 + $240 + $510 = $10,150
Credits:	Accounts Payable
	$10,150

Cash Payments Journal							Page 5
Date	Ck. No.	Account Debited	Post. Ref.	Other Accounts DR	Accounts Payable DR	Merchandise Inventory CR	Cash CR
Aug. 1	682	Rent Expense	513	1,300			1,300
2	683	Salaries Payable	204	1,300			1,300
5	684	Office Supplies	109	730			730
8	685	Filter Co.	✓		2,500		2,500
11	686	Goldner Inc.	✓		1,400	14	1,386
16	687	Salaries Expense	510	1,290			1,290
19	688	Merchandise Inventory	105	850			850
31	689	Dividends	310	600			600
30		Totals		6,070	3,900	14	9,956
				(X)	(201)	(105)	(101)

Debits:	Other Accounts + Accounts Payable
	$6,070 + $3,900 = $9,970
Credits:	Merchandise Inventory + Cash
	$14 + $9,956 = $9,970

Requirement 4

AMHERST NETWORKING SYSTEMS Unadjusted Trial Balance August 31			
Acct. No.	**Account Name**	**Debit**	**Credit**
101	Cash	3,779	
102	Accounts Receivable	26,795	
105	Merchandise Inventory	47,035	
109	Office Supplies	2,650	
117	Prepaid Insurance	2,600	
160	Furniture	37,510	
161	Accumulated Depreciation—Furniture		10,000
201	Accounts Payable		18,950
220	Note Payable—long-term		25,000
301	Common Stock		20,000
305	Retained Earnings		41,090
310	Dividends	600	
401	Sales Revenue		12,170
501	Cost of Goods Sold	3,651	
510	Salaries Expense	1,290	
513	Rent Expense	1,300	
	Totals	127,210	127,210

Accounts Receivable Subsidiary Ledger

Customer	Balance
Friend Co.	$9,000
R. T. Loeb	0
Parker Inc.	11,300
K. D. Sanders	6,495
Total	$26,795

The total of the customer balances in the accounts receivable subsidiary ledger agrees with the balance in Accounts Receivable in the general ledger: $26,795.

Accounts Payable Subsidiary Ledger

Vendor	Balance
Bradford Corp.	$510
Filter Co.	10,440
Goldner Inc.	0
Seacrest Supply	8,000
Totals	$18,950

The total of the vendor balances in the accounts payable subsidiary ledger agrees with the balance in Accounts Payable in the general ledger: $18,950.

Requirement 5

General Journal				Page 9
Date	**Accounts and Explanation**	**Post. Ref.**	**Debit**	**Credit**
Aug. 31	Supplies Expense	519	1,650	
(a)	Office Supplies	109		1,650
(b)	Insurance Expense	516	350	
	Prepaid Insurance			350
(c)	Depreciation Expense—Furniture	514	250	
	Accumulated Depreciation—Furniture			250
(d)	Salaries Expense	510	1,060	
	Salaries Payable	204		1,060

Requirement 6

AMHERST NETWORKING SYSTEMS Adjusted Trial Balance August 31		
Account Name	**Debit**	**Credit**
Cash	3,779	
Accounts Receivable	26,795	
Merchandise Inventory	47,035	
Office Supplies	1,000	
Prepaid Insurance	2,250	
Furniture	37,510	
Accumulated Depreciation—Furniture		10,250
Accounts Payable		18,950
Salaries Payable		1,060
Note Payable—long-term		25,000
Common Stock		20,000
Retained Earnings		41,090
Dividends	600	
Sales Revenue		12,170
Cost of Goods Sold	3,651	
Salaries Expense	2,350	
Rent Expense	1,300	
Depreciation Expense—Furniture	250	
Insurance Expense	350	
Supplies Expense	1,650	
Totals	128,520	128,520

Requirement 7

AMHERST NETWORKING SYSTEMS Income Statement For the Month Ended August 31		
Net Sales Revenue		$12,170
Cost of Goods Sold		(3,651)
Gross Profit		8,519
Operating Expenses:		
Salaries Expense	2,350	
Supplies Expense	1,650	
Rent Expense	1,300	
Insurance Expense	350	
Depreciation Expense—Furniture	250	
Total Operating Expenses		(5,900)
Net Income		$2,619

AMHERST NETWORKING SYSTEMS Statement of Retained Earnings For the Month Ended August 31	
Retained Earnings, August 1	$41,090
Net income for the month	2,619
	$43,709
Dividends	(600)
Retained Earnings, August 31	$43,109

AMHERST NETWORKING SYSTEMS Balance Sheet August 31		
Assets		
Current Assets:		
Cash	$3,779	
Accounts Receivable	26,795	
Merchandise Inventory	47,035	
Office Supplies	1,000	
Prepaid Insurance	2,250	
Total Current Assets		$80,859
Plant Assets:		
Furniture	37,510	
Less: Accumulated Depreciation	10,250	
Total Plant Assets		27,260
Total Assets		$108,119
Liabilities		
Current Liabilities:		
Accounts Payable	$18,950	
Salaries Payable	1,060	
Total Current Liabilities		$20,010
Long-term Liabilities:		
Notes Payable		25,000
Total Liabilities		$ 45,010
Stockholders' Equity		
Common Stock		20,000
Retained Earnings		43,109
Total Stockholders' Equity		63,109
Total Liabilities and Stockholders' Equity		$108,119

Requirement 8

General Journal				Page 9
Date	**Accounts and Explanation**	**Post. Ref.**	**Debit**	**Credit**
Aug. 31	Sales Revenue	401	12,170	
	Income Summary	400		12,170
	Income Summary	400	9,551	
	Cost of Goods Sold	501		3,651
	Salaries Expense	510		2,350
	Rent Expense	513		1,300
	Depreciation Expense—Furniture	514		250
	Insurance Expense	516		350
	Supplies Expense	519		1,650
	Income Summary	400	2,619	
	Retained Earnings	305		2,619
	Retained Earnings	305	600	
	Dividends	310		600

Requirement 9

AMHERST NETWORKING SYSTEMS
Post-Closing Trial Balance
August 31

Account Name	Debit	Credit
Cash	3,779	
Accounts Receivable	26,795	
Merchandise Inventory	47,035	
Office Supplies	1,000	
Prepaid Insurance	2,250	
Furniture	37,510	
Accumulated Depreciation—Furniture		10,250
Accounts Payable		18,950
Salaries Payable		1,060
Note Payable—long-term		25,000
Common Stock		20,000
Retained Earnings		43,109
Totals	118,369	118,369

Tying It All Together

1. Review Item 1A (Risk Factors) of the Notes to the Financial Statements. How does McCormick & Company, Incorporated minimize the risks associated with data breaches or cyber attacks?

2. Perform a web search on ways businesses can prevent security breaches. What are some security solutions that McCormick & Company might use?

Solution:

Requirement 1

McCormick & Company, Incorporated invests in security technology to protect its data and business processes against risk of data security breaches and cyber attacks.

Requirement 2

Answers will vary but might include security measures such as antivirus software, firewalls, encryption software, and two-step authentication or password security software.

Decision Case B-1

Requirements

1. Determine the beginning and ending balances of Accounts Receivable.

2. Determine the sales on account in the month of April.

3. Determine total cash receipts on account from customers during April.

Solution:

Requirement 1

Accounts Receivable Subsidiary Ledger	
April 1	
Customer	**Balance**
Garcia Sales	$ 450
Leewright, Inc.	2,800
Sally Jones	1,100
Jacques LeHavre	0
Total	$ 4,350

Accounts Receivable Subsidiary Ledger	
April 30	
Customer	**Balance**
Garcia Sales	$ 4,700
Leewright, Inc.	3,900
Sally Jones	2,000
Jacques LeHavre	0
Total	$ 10,600

Requirement 2

Sales on Account		
Date	**Customer**	**Amount**
Apr. 8	Jacques LeHavre	$2,400
11	Sally Jones	400
15	Leewright, Inc.	2,600
16	Jacques LeHavre	900
24	Sally Jones	2,000
25	Garcia Sales	3,600
29	Garcia Sales	1,100
	Total	$13,000

Requirement 3

Cash Receipts from Customers			
Date	**Customer**	**Invoice Amount**	**Cash Receipts**
Apr. 3	Garcia Sales	$ 450	$ 450
5	Sally Jones	1,100	1,100
18	Jacques LeHavre	2,400	2,400
21	Sally Jones	400	400
27	Jacques LeHavre	700	700
29	Leewright, Inc.	1,500	1,500
	Total	$ 6,550	$ 6,550

Fraud Case B-1

How might Didrikson investigate the suspected fraud?

Solution:

Didrikson can investigate the suspected fraud by requesting the source documents associated with the checks. If the employee who is approving the cash payments cannot supply the supporting documentation, then the fraud can be confirmed.

Communication Activity B-1

In 150 words or fewer, explain what an accounting information system is and describe an effective system.

Solution:

An accounting information system (AIS) collects, records, stores, and processes accounting data to produce information that is useful for decision makers.
An effective AIS provides control, compatibility, flexibility, relevance, and a positive cost/benefit relationship.

Control—safeguards a business’s assets and reduces the likelihood of fraud and errors.
Compatibility—works smoothly with the business's employees and organizational structure.
Flexibility— accommodates changes in a business over time.
Relevance— provides information that is relevant, improving decision making and reduces uncertainty.
Positive cost/benefit relationship— a system that gives the <ITAL>most benefit for the least cost.

1. What is the primary purpose of managerial accounting?

The primary purpose of managerial accounting is to provide information to help managers plan and control operations.

2. List six differences between financial accounting and managerial accounting.

Financial accounting and managerial accounting differ on the following 6 dimensions: (1) primary users, (2) purpose of information, (3) focus and time dimension of the information, (4) rules and restrictions, (5) scope of information, and (6) behavioral.

3. Explain the difference between line positions and staff positions.

Line positions are directly involved in providing goods or services to customers. Staff positions support line positions.

4. Explain the difference between planning, directing, and controlling.

Planning means choosing goals and deciding how to achieve them,. Directing involves running the day-to-day operations of a business. Controlling is the process of monitoring operations and keeping the company on track.

5. List the four IMA standards of ethical practice and briefly describe each.

The four IMA standards of ethical practice and a description of each follow.

I. Competence.
- Maintain an appropriate level of professional expertise.
- Perform professional duties in accordance with relevant laws, regulations, and technical standards.
- Provide decision support information and recommendations that are accurate, clear, concise, and timely.
- Recognize and communicate professional limitations or other constraints that preclude responsible judgment or successful performance of an activity.

II. Confidentiality.
- Keep information confidential except when disclosure is authorized or legally required.
- Inform all relevant parties regarding appropriate use of confidential information. Monitor subordinates' activities to ensure compliance.
- Refrain from using confidential information for unethical or illegal advantage.

III. Integrity.
- Mitigate actual conflicts of interest, regularly communicate with business associates to avoid apparent conflicts of interest. Advise all parties of any potential conflicts.
- Refrain from engaging in any conduct that would prejudice carrying out duties ethically.
- Abstain from engaging in or supporting any activity that might discredit the profession.

IV. Credibility.
- Communicate information fairly and objectively.
- Disclose all relevant information that could reasonably be expected to influence an intended user's understanding of the reports, analyses, or recommendations.
- Disclose delays or deficiencies in information, timeliness, processing, or internal controls in conformance with organization policy and/or applicable law.

6. Describe a service company and give an example.

Service companies sell time, skills, and knowledge. They seek to provide services that are high quality with reasonable prices and timely delivery. Examples of service companies include phone service companies, banks, cleaning service companies, accounting firms, law firms, medical physicians, and online auction services.

7. Describe a merchandising company and give an example.

Merchandising companies resell products they buy from suppliers. Merchandisers keep an inventory of products, and managers are accountable for the purchasing, storage, and sale of the products. Examples of merchandising companies include toy stores, grocery stores, and clothing stores.

8. How do manufacturing companies differ from merchandising companies?

Merchandising companies resell products they previously bought from suppliers, whereas manufacturing companies use labor, equipment, supplies, and facilities to convert raw materials into new finished products. In contrast to merchandising companies, manufacturing companies have a broad range of production activities that require tracking costs on three kinds of inventory.

9. List the three inventory accounts used by manufacturing companies and describe each.

The three inventory accounts used by manufacturing companies are Raw Materials Inventory, Work-in-Process Inventory, and Finished Goods Inventory.

Raw Materials Inventory includes materials used to manufacture a product. Work-in-Process Inventory includes goods that have been started in the manufacturing process but are not yet complete. Finished Goods Inventory includes completed goods that have not yet been sold.

10. Explain the difference between a direct cost and an indirect cost.

A direct cost is a cost that can be easily and cost-effectively traced to a cost object (which is anything for which managers want a separate measurement of cost). An indirect cost is a cost that cannot be easily or cost-effectively traced to a cost object.

11 What are the three manufacturing costs for a manufacturing company? Describe each.

The three manufacturing costs for a manufacturing company are direct materials, direct labor, and manufacturing overhead.
Direct materials are materials that become a physical part of a finished product and whose costs are easily traceable to the finished product.
Direct labor is the labor cost of the employees who convert materials into finished products.
Manufacturing overhead includes all manufacturing costs except direct materials and direct labor, such as indirect materials, indirect labor, factory depreciation, factory rent, and factory property taxes.

12. Give five examples of manufacturing overhead.

Examples of manufacturing overhead include costs of indirect materials, indirect labor, repair and maintenance, utilities, rent, insurance, property taxes, manufacturing plant managers' salaries, and depreciation on manufacturing buildings and equipment.

13. What are prime costs? Conversion costs?

Prime costs are direct materials plus direct labor. Conversion costs are direct labor plus manufacturing overhead. Note that direct labor is classified as both a prime cost and a conversion cost.

14. What are product costs?

Product costs are all costs of a product that GAAP requires companies to treat as an asset for external financial reporting. These costs are recorded as an asset and not expensed until the product is sold. Product costs include direct materials, direct labor, and manufacturing overhead.

15. How do period costs differ from product costs?

Period costs are non-manufacturing costs that are expensed in the same accounting period in which they are incurred, whereas product costs are recorded as an asset and not expensed until the accounting period in which the product is sold.

16 How is cost of goods manufactured calculated?

Cost of Goods Manufactured is calculated as Beginning Work-in-Process Inventory + Direct Materials Used + Direct Labor + Manufacturing Overhead – Ending Work-in-Process Inventory.

17 How does a manufacturing company calculate unit product cost?
How is this different from a merchandising company?

For a manufacturing company, the activity in the Finished Goods
Inventory account provides the information for determining Cost
of Goods Sold. A manufacturing company calculates Cost of
Goods Sold as Beginning Finished Goods Inventory +
Cost of Goods Manufactured – Ending Finished Good Inventory.
In addition, a manufacturing company must track costs from Raw
Materials Inventory and Work-in-Process Inventory in order
to compute Cost of Goods Manufactured used in the previous equation.
For a merchandising company, the activity in the Merchandise Inventory
account provides the information for determining Cost of Goods Sold.
A merchandising company calculates Cost of Goods Sold as Beginning
Merchandise Inventory + Purchases and Freight In – Ending
Merchandise Inventory.

18 How does a manufacturing company calculate unit cost per item?

A manufacturing company calculates unit product cost as Cost
of Goods Manufactured / Total number of units produced.

19 How does a service company calculate unit cost per service?

A service company calculates unit cost per service as
Total Costs / Total number of services provided.

20. How does a merchandising company calculate unit cost per item?

A merchandising company calculates unit cost per item as
Total Cost of Goods Sold / Total number of items sold.

S16-1

Indicate whether the statement relates to managerial accounting (MA) or financial accounting (FA):

Solution:

a.	FA
b.	MA
c.	MA
d.	FA
e.	FA

S16-2

Which standard(s) are violated in each situation?

Solution:

a.	Confidentiality
b.	Integrity
c.	Competence (skipping the session); Integrity
	(company-paid conference)
d.	Competence
e.	Credibility; Integrity

S16-3

Granger Cards is a manufacturer of greeting cards. Classify its costs by matching the costs to the terms.

Solution:

a.	2
b.	4
c.	1
d.	5
e.	4
f.	5
g.	3

S16-4

Calculate the total manufacturing overhead costs for the month.

Solution:

Glue for frames	$ 250
Plant depreciation	7,500
Plant foreman's salary	3,500
Plant janitor's wages	1,300
Oil for manufacturing equipment	150
Total manufacturing overhead	$ 12,700

S16-5

Classify each cost of a paper manufacturer as either product cost or period cost:

Solution:

a.	Period cost
b.	Product cost
c.	Product cost
d.	Period cost
e.	Product cost
f.	Period cost
g.	Product cost
h.	Product cost
i.	Period cost

S16-6

Compute cost of goods sold.

Solution:

Beginning inventory		$ 8,600
Purchases	$ 47,000	
Freight in	2,400	49,400
Cost of goods available for sale		58,000
Ending inventory		(5,500)
Cost of goods sold		$ 52,500

S16-7

Consider the following partially completed income statements for merchandising companies and compute the missing amounts:

Solution:

	Solutions:	Calculations:
(a)	$13,200	$63,200 [b, below] – $50,000
(b)	$63,200	$61,000 + $2,200
(c)	$28,000	$40,000 – $12,000
(d)	$200,800	$86,800 + 114,000
(e)	$60,000	$89,000 – $29,000
(f)	$86,800	$89,000 – $2,200
(g)	$30,000	$114,000 – $84,000

Order of calculations:

Smith, Inc.: (b), (a), (c)

Allen, Inc.: (e), (f), (d), and (g)

S16-8

Compute the amount of direct materials used.

Solution:

Beginning Raw Materials Inventory		$ 4,100
Purchases of Raw Materials	$ 6,300	
Freight In	400	6,700
Raw Materials Available for Use		10,800
Ending Raw Materials Inventory		(1,300)
Direct Materials Used		$ 9,500

S16-9

Compute the cost of goods manufactured for the year.

Solution:

Beginning Work-in-Process Inventory		$ 1,000
Direct Materials Used	$ 12,000	
Direct Labor	9,000	
Manufacturing Overhead	21,000	
Total Manufacturing Costs Incurred during the Year		42,000
Total Manufacturing Costs to Account For		43,000
Ending Work-in-Process Inventory		(5,000)
Cost of Goods Manufactured		$ 38,000

S16-10

Calculate the cost of goods sold for The Ellis Company for the month of June.

Solution:

Beginning Finished Goods Inventory	$ 30,000
Cost of Goods Manufactured	165,000
Cost of Goods Available for Sale	195,000
Ending Finished Goods Inventory	(10,000)
Cost of Goods Sold	$ 185,000

S16-11

Match the term with the correct definition.

Solution:

1.	d.
2.	c.
3.	e.
4	a.
5	b.

S16-12

What was the cost of service to provide one haircut?

Solution:

Cost of one haircut	= Total operating costs / Total number of haircuts
	= [$950 + $548 + $190 + $60] / 190 haircuts
	= $1,748 / 190 haircuts
	= $9.20 per haircut

E16-13

Match the following terms to the appropriate statement. Some terms may be used more than once and some terms may not be used at all.

Solution:

a.	Financial
b.	Creditors and Stockholders
c.	Controlling
d.	Managers
e.	Financial
f.	Managerial
g.	Planning

E16-14

Requirements

1. What should Sue Peters do?

2. Would you change your answer if Sue Peters was the one recently hired as controller and Dale Miller was a well-liked, longtime employee who indicated he always eventually repaid the fund?

Solution:

Students' responses will vary. Illustrative answers follow.

Requirement 1

A new employee who has engaged in this behavior is unlikely to become
a valued and trusted employee. This type of behavior is unethical.
As controller, Sue Peters probably hired Dale, and she is also responsible
for the lack of controls that permitted a new employee to commit this theft.
She will need to supervise the next bookkeeper more carefully.

Requirement 2

Being a new employee, Sue Peters may want to discuss the situation with
the company's presi-dent. Unless Sue can obtain additional information,
she may want to indicate to Dale that this behavior will not be tolerated in
the future. Sue should establish better controls and closer su-pervision.

E16-15

Wheels, Inc. manufactures wheels for bicycles, tricycles, and scooters. For each cost given below, determine if the cost is a product cost or a period cost. If the cost is a product cost, further determine if the cost is direct materials (DM), direct labor (DL), or manufacturing overhead (MOH) and then determine if the product cost is a prime cost, conversion cost, or both. If the cost is a period cost, further determine if the cost is a selling expense or administrative expense (Admin). Cost (a) is

Solution:

Cost	Product					Period	
	DM	DL	MOH	Prime	Conversion	Selling	Admin.
a. Metal used for rims	X			X			
b. Sales salaries						X	
c. Rent on factory			X		X		
d. Wages of assembly							
workers		X		X	X		
e. Salary of production							
supervisor			X		X		
f. Depreciation on							
office equipment							X
g. Salary of CEO							X
h. Delivery expense						X	

E16-16

Determine the company type. Identify each company as a service company, merchandising company, or manufacturing company.

Solution:

Company A is a manufacturing company. Company B is a service company.
Company C is a merchandising company.

E16-17

Calculate operating income for each company.

Solution:

Company A (all amounts in millions):		
Sales Revenue		$ 48
Cost of Goods Sold		23
Gross Profit		25
Operating Expenses:		
Selling Expenses	$ 4	
Administrative Expenses	7	
Total Operating Expenses		11
Operating Income		$ 14

Company B (all amounts in millions):		
Service Revenue		$ 65
Expenses:		
Wages Expense	$ 12	
Rent Expense	12	
Total Expenses		24
Operating Income		$ 41

Company C (all amounts in millions):		
Sales Revenue		$ 75
Cost of Goods Sold		25
Gross Profit		50
Operating Expenses:		
Selling Expenses	$ 8	
Administrative Expenses	4	
Total Operating Expenses		12
Operating Income		$ 38

E16-18

Calculate total current assets for each company.

Solution:

Company A (all amounts in millions):	
Cash	$6
Accounts Receivable	14
Raw Materials Inventory	6
Work-in-Process Inventory	9
Finished Goods Inventory	10
Total current assets	$ 45

Company B (all amounts in millions):	
Cash	$ 34
Accounts Receivable	8
Total current assets	$ 42

Company C (all amounts in millions):	
Cash	$ 25
Accounts Receivable	19
Merchandise Inventory	12
Total current assets	$ 56

E16-19

Consider the following partially completed schedules of cost of goods manufactured. Compute the missing amounts.

Solution:

(a)	
Total Manufacturing Costs to Account For	$ 55,400
Total Manufacturing Costs Incurred during the Year	$ (4,200)
Beginning Work-in-Process Inventory	$ 10,200
(b)	
Total Manufacturing Costs Incurred during the Year	$ 45,200
Direct Materials Used	$ (14,400)
Direct Labor	$ (10,300)
Manufacturing Overhead	$ 20,200
(c)	
Total Manufacturing Costs to Account For	$ 55,400
Cost of Goods Manufactured	$ (50,500)
Ending Work-in-Process Inventory	$ 4,900
(d)	
Direct Materials Used	$ 35,900
Direct Labor	$ 20,100
Manufacturing Overhead	$ 10,000
Total Manufacturing Costs Incurred during the Year	$ 66,000
(e)	
Beginning Work-in-Process Inventory	$ 40,800
Total Manufacturing Costs Incurred during the Year [d, above]	$ 66,000
Total Manufacturing Costs to Account For	$ 106,800
(f)	
Total Manufacturing Costs to Account For [e, above]	$ 106,800
Ending Work-in-Process Inventory	$ (25,500)
Cost of Goods Manufactured	$ 81,300

(g)

Total Manufacturing Costs Incurred during the Year [h, below]	$	6,100
Direct Labor	$	(1,900)
Manufacturing Overhead	$	(900)
Direct Materials Used	$	3,300

(h)

Total Manufacturing Costs to Account For	$	8,300
Beginning Work-in-Process Inventory	$	(2,200)
Total Manufacturing Costs Incurred During the Year	$	6,100

(i)

Total Manufacturing Costs to Account For	$	8,300
Ending Work-in-Process Inventory	$	(2,600)
Cost of Goods Manufactured	$	5,700

E16-20

Requirements

1. Use the information to prepare a schedule of cost of goods manufactured.

2. What is the unit product cost if Wilson manufactured 3,700 lamps for the year?

Solution:

Requirement 1

WILSON CORP. Schedule of Cost of Goods Manufactured Year Ended December 31, 2018			
Beginning Work-in-Process Inventory			$ 109,000
Direct Materials Used:			
Beginning Raw Materials Inventory	$59,000		
Purchases of Raw Materials	151,000		
Raw Materials Available for Use	210,000		
Ending Raw Materials Inventory	(23,000)		
Direct Materials Used		$ 187,000	
Direct Labor		121,000	
Manufacturing Overhead:			
Depreciation, plant building and equipment	16,000		
Insurance on plant	24,000		
Repairs and maintenance—plant	10,000		
Indirect labor	39,000		
Total Manufacturing Overhead		89,000	
Total Manufacturing Costs Incurred During the Yr.			397,000
Total Manufacturing Costs to Account For			506,000
Ending Work-in-Process Inventory			(62,000)
Cost of Goods Manufactured			$ 444,000

Requirement 2

Unit product cost	=	Cost of goods manufactured / Total units produced
	=	$444,000 / 3,700 lamps
	=	$120 per lamp

E16-21

Compute cost of goods manufactured and cost of goods sold.

Solution:

Beginning Work-in-Process Inventory			$ 40,000
Direct Materials Used:			
Beginning Raw Materials Inventory	$27,000		
Purchases of Raw Materials	73,000		
Raw Materials Available for Use	100,000		
Ending Raw Materials Inventory	(28,000)		
Direct Materials Used		$ 72,000	
Direct Labor		88,000	
Manufacturing Overhead		43,000	
Total Manufacturing Costs Incurred During the Year			203,000
Total Manufacturing Costs to Account For			243,000
Ending Work-in-Process Inventory			(32,000)
Cost of Goods Manufactured			$ 211,000

Beginning Finished Goods Inventory	$ 18,000	
Cost of Goods Manufactured	211,000	[above]
Cost of Goods Available for Sale	229,000	
Ending Finished Goods Inventory	(25,000)	
Cost of Goods Sold	$ 204,000	

E16-22

Match the following terms to the appropriate statement. Some terms may be used more than once and some terms may not be used at all.

Solution:

a.	JIT
b.	TQM
c.	ERP
d.	E-Commerce

E16-23

Requirements

1. What is Buddy's net income for April?

2. What is the cost of service to groom one dog?

Solution:

Requirement 1

Grooming Revenue		$ 16,300
Expenses:		
Wages Expense	$4,061	
Grooming Supplies Expense	1,675	
Building Rent Expense	900	
Utilities Expense	305	
Depreciation Expense—Equipment	55	
Total Expenses		6,996
Net Income		$ 9,304

Requirement 2

Cost of Service to	=	Total expenses / Total number of dogs groomed
Groom One Dog		
	=	$6,996 / 660 dogs
	=	$10.60 per dog

E16-24

Requirements

1. Calculate the operating income for 2018.

2. Conway sold 6,600 brushes in 2018. Compute the unit cost for one brush.

Solution:

Requirement 1

Sales Revenue		$ 151,800
Cost of Goods Sold:		
Beginning Merchandise Inventory	$7,920	
Purchases	85,800	
Cost of Goods Available for Sale	93,720	
Ending Merchandise Inventory	(11,748)	
Cost of Goods Sold		81,972
Gross Profit		69,828
Selling and Administrative Expenses		47,058
Operating Income		$ 22,770

Requirement 2

Unit cost for one brush	=	Cost of goods sold / Total units sold
	=	$81,972 / 6,600 brushes
	=	$12.42 per brush

P16-25A

Requirements

1. Which of these suggested strategies are inconsistent with IMA standards?
2. How might these inconsistencies affect the company's creditors and stakeholders
3. What should Wallace do if Cauvet insists that she follow all of these

Solution:

Students' responses will vary. Illustrative answers follow.

Requirement 1

a. If the goods have been received, postponing recording of the purchase understates liabilities. This is unethical and inconsistent with the IMA standards even if the supplier agrees to delay billing.

b. The software has not been sold. Therefore, it would be inconsistent with the IMA standards to record it as sales.

c. Delaying year-end closing incorrectly records next year's sales in this year's sales. This is unethical and inconsistent with the IMA standards.

d. The appropriate allowance for bad debts is a difficult judgment. The decision should not be driven by the desire to meet a profit goal. It should be based on the likelihood that the company will not collect the debts. We cannot determine this without more information. However, since the company emphasizes earnings growth, which can lead to sales to customers with weaker credit records, reducing the allowance seems questionable. It is not clear whether this strategy is inconsistent with the IMA standards.

e. If the maintenance is postponed, there is no transaction to record. This strategy is beyond the responsibility of the controller, so it does not violate IMA standards.

Requirement 2

The inconsistencies noted for Smart Software, Inc. particularly impact the financial statement information provided by financial accounting to external users, such as creditors and stockholders. They will be led to believe the operating performance (profitability) of the company company is better than it really is. This misrepresentation may result in the investors holding the stock when they may have sold it with the correct information. Similarly, creditors may grant credit to the company with the false income information when they may not grant credit with the correct income information.

Requirement 3

The controller should resist attempts to implement a, b, and c and should gather more information about d. If the President ignores Wallace, then Wallace needs to consider if she wants to work for a company that engages in unethical behavior. Accountants should not be associated with any unethical behavior, and Wallace should resign.

P16-26A

Requirements

1. Describe the difference between period costs and product costs.

2. Classify Lawlor's costs as period costs or product costs. If the costs are product costs, further classify them as direct materials, direct labor, or manufacturing overhead.

Solution:

Requirement 1

Period costs are operating costs that are expensed in the accounting period in which they are incurred.

Product costs are all costs of a product that GAAP requires companies to treat as an asset for external financial reporting. These costs are recorded as an asset (inventory) on the balance sheet until the asset is sold. The cost is then transferred to an expense account (Cost of Goods Sold) on the income statement. Product costs include direct materials, direct labor, and manufacturing overhead.

On the income statement, Cost of Goods Sold (product cost) is subtracted from Sales Revenue to determine gross profit. The period costs are then subtracted to determine operating income.

Requirement 2

Cost	Period Cost	Product Cost		
		Direct Material	Direct Labor	Manufacturing Overhead
Shaft and handle of weed trimmer		X		
Motor of weed trimmer		X		
Factory labor for workers assembling weed trimmer			X	
Nylon thread used by the weed trimmer (not traced to the product)				X
Glue to hold the housing together				X
Plant janitorial wages				X
Depreciation on factory equipment				X
Rent on plant				X
Sales commissions	X			
Administrative salaries	X			
Plant utilities				X
Shipping costs to deliver finished weed trimmers to customers	X			

P16-27A

Requirements

1. Define the three business types: service, merchandising, and manufacturing.

2. Based on the data given for the two companies, determine the business type of each one.

3. Calculate the cost of goods sold for each company.

Solution:

Requirement 1

Service companies sell services rather than products. They sell time, skills, and knowledge. Merchandising companies resell products previously bought from suppliers. Manufacturing companies use labor, equipment, supplies, and facilities to convert raw materials into new finished products.

Requirement 2

Company A is a merchandising company. Company B is a manufacturing company.The com-pany types can be determined by the account names in the ledger.

Requirement 3

Company A:	
Beginning Merchandise Inventory	$ 10,600
Purchases	154,500
Cost of Goods Available for Sale	165,100
Ending Merchandise Inventory	(13,100)
Cost of Goods Sold	$ 152,000

Company B:	
Beginning Finished Goods Inventory	$ 15,000
Cost of Goods Manufactured	214,500
Cost of Goods Available for Sale	229,500
Ending Finished Goods Inventory	(11,700)
Cost of Goods Sold	$ 217,800

P16-28A

Requirements

1. Prepare a schedule of cost of goods manufactured for Gourmet Bones for the year ended December 31, 2018.

2. Prepare an income statement for Gourmet Bones for the year ended December 31, 2018.

3. How does the format of the income statement for Gourmet Bones differ from the income statement of a merchandiser?

4. Gourmet Bones manufactured 17,900 units of its product in 2018. Compute the company's unit product cost for the year, rounded to the nearest cent.

Solution:

Requirement 1

Gourmet Bones Schedule of Cost of Goods Manufactured Year Ended December 31, 2018			
Beginning Work-in-Process Inventory			$ 0
Direct Materials Used:			
Beginning Raw Materials Inventory	$ 13,500		
Purchases of Raw Materials	36,000		
Raw Materials Available for Use	49,500		
Ending Raw Materials Inventory	(7,500)		
Direct Materials Used		$ 42,000	
Direct Labor		23,000	
Manufacturing Overhead:			
Plant janitorial services	700		
Utilities for plant	1,300		
Rent on plant	17,000		
Total Manufacturing Overhead		19,000	
Total Manufacturing Costs Incurred during the Year			84,000
Total Manufacturing Costs to Account For			84,000
Ending Work-in-Process Inventory			(3,500)
Cost of Goods Manufactured			$ 80,500

Requirement 2

Gourmet Bones Income Statement Year Ended December 31, 2018		
Revenues:		
Sales Revenue		$ 107,000
Cost of Goods Sold:		
Beginning Finished Goods Inventory	$ 0	
Cost of Goods Manufactured*	80,500	
Cost of Goods Available for Sale	80,500	
Ending Finished Goods Inventory	(5,200)	
Cost of Goods Sold		75,300
Gross Profit		31,700
Expenses:		
Sales Salaries Expense	6,000	
Delivery Expense	1,300	
Customer Service Hotline Expense	1,200	
Total Expenses		8,500
Net Income (Loss)		$ 23,200

* From the Schedule of Cost of Goods Manufactured in Requirement 1.

Requirement 3

For a manufacturing company, cost of goods sold on the income statement is based on cost of goods manufactured and the change in Finished Goods Inventory. For a merchandising company, cost of goods sold on the income statement is based on cost of merchandise purchased (including freight in) and the change in Merchandise Inventory.

Requirement 4

Unit product cost	= Cost of goods manufactured / Total units produced
	= $80,500 / 17,900 units
	= $4.50 per unit (rounded to nearest cent)

P16-29A

Certain item descriptions and amounts are missing from the monthly schedule of cost of goods manufactured and income statement of Elly Manufacturing Company. Fill in the blanks with the missing words and replace the Xs with the correct amounts.

Solution:

Elly Manufacturing Company Schedule of Cost of Goods Manufactured Month Ended June 30, 2018			
Beginning Work-in-Process Inventory			$ 27,000
Direct Materials Used:			
Beginning Raw Materials Inventory	**$ 28,000**		
Purchases of Raw Materials	56,000		
Raw Materials Available for Use	84,000		
Ending Raw Materials Inventory	(20,000)		
Direct Materials Used		**$ 64,000**	
Direct Labor		**72,000**	
Manufacturing Overhead		44,000	
Total Manufacturing Costs Incurred During the Month			180,000
Total Manufacturing Costs to Account For			**207,000**
Ending Work-in-Process Inventory			(25,000)
Cost of Goods Manufactured			**$ 182,000**

Missing Amounts:	
Beginning Raw Materials Inventory:	
Raw Materials Available for Use	$ 84,000
Purchases of Raw Materials	(56,000)
Beginning Raw Materials Inventory	$ 28,000
Direct Materials Used:	
Raw Materials Available for Use	$ 84,000
Ending Raw Materials Inventory	(20,000)
Direct Materials Used	$ 64,000
Direct Labor:	
Total Manufacturing Costs Incurred During the Month	$ 180,000
Manufacturing Overhead	(44,000)
Direct Materials Used [calculated above]	(64,000)
Direct Labor	$ 72,000
Total Manufacturing Costs to Account For:	
Beginning Work-in-Process Inventory	$ 27,000
Total Manufacturing Costs Incurred During the Month	180,000
Total Manufacturing Costs to Account For	$ 207,000
Cost of Goods Manufactured:	
Total Manufacturing Costs to Account For [calculated above	$ 207,000
Ending Work-in-Process Inventory	(25,000)
Cost of Goods Manufactured	$ 182,000

Elly Manufacturing Company **Income statement** **Month Ended June 30, 2018**		
Sales Revenue		**$ 490,000**
Cost of Goods Sold:		
Beginning Finished Goods Inventory	$ 110,000	
Cost of Goods Manufactured	**182,000**	
Cost of Goods Available for Sale	**292,000**	
Ending Finished Goods Inventory	**(60,000)**	
Cost of Goods Sold		232,000
Gross Profit		258,000
Selling and Administrative Expenses:		
Selling Expenses	98,000	
Administrative Expenses	**62,000**	
Total Selling and Administrative Expenses		160,000
Operating Income		**$ 98,000**

Missing Amounts:	
Sales Revenue:	
Cost of Goods Sold	$ 232,000
Gross Profit	258,000
Sales Revenue	$ 490,000
Cost of Goods Manufactured:	
[From the Schedule of Cost of Goods Manufactured]	
Cost of Goods Available for Sale:	
Beginning Finished Goods Inventory	$ 110,000
Cost of Goods Manufactured	182,000
Cost of Goods Available for Sale	$ 292,000
Ending Finished Goods Inventory:	
Cost of Goods Available for Sale [calculated above]	$ 292,000
Cost of Goods Sold	(232,000)
Ending Finished Goods Inventory	$ 60,000
Administrative Expenses:	
Total Operating Expenses	$ 160,000
Selling Expenses	(98,000)
Administrative Expenses	$ 62,000
Operating Income:	
Gross Profit	$ 258,000
Total Selling and Administrative Expenses	(160,000)
Operating Income	$ 98,000

P16-30A

Requirements

Analyze the inventory accounts to determine:

1. Cost of direct materials purchased during the year.
2. Cost of goods manufactured for the year.
3. Cost of goods sold for the year.

Solution:

Requirement 1

Cost of raw materials purchased:									
Direct		Beginning		Cost of Raw			Ending		
Materials	=	Raw Materials		+	Materials		–	Raw Materials	
Used		Inventory			Purchased			Inventory	
Solving for cost of raw materials purchased:									
Cost of Raw		Direct			Ending			Beginning	
Materials	=	Materials		+	Raw Materials		–	Raw Materials	
Purchased		Used			Inventory			Inventory	
	=	$	2,000,000	+	$	800,000	–	$	700,000
	=	$	2,100,000						

Requirement 2

Cost of goods manufactured for the year:									
Cost of		Beginning			Total			Ending	
Goods	=	Work-in-Process		+	Manufacturing		–	Work-in-Process	
Manufactured		Inventory			Costs Incurred			Inventory	
	=	$	1,500,000	+	$	26,300,000	–	$	1,200,000
	=	$	26,600,000						

Requirement 3

Cost of goods sold for the year:									
Cost of		Beginning			Cost of			Ending	
Goods	=	Finished Goods		+	Goods		–	Finished Goods	
Sold		Inventory			Manufactured			Inventory	
	=	$	400,000	+	$	26,600,000	–	$	600,000
					[calculated in 2]				
	=	$	26,400,000						

P16-31A

Requirements

1. Prepare an income statement for the month of March.
2. Compute the per unit cost of repairing one windshield.
3. The manager of Windshield Doctors must keep unit operating cost below $50 per windshield in order to get his bonus. Did he meet the goal?

Solution:

Requirement 1

WINDSHIELD DOCTORS Income Statement Month Ended March 31, 2018		
Revenues:		
Sales Revenue		$ 23,000
Expenses:		
Salaries and Wages Expense	$ 12,000	
Materials Expense	4,600	
Depreciation Expense—Truck	300	
Depreciation Expense—Building and Equipment	1,200	
Supplies Expense	300	
Utilities Expense	460	
Total Expenses		18,860
Net Income		$ 4,140

Requirement 2

Per unit cost	= Total expenses / Total windshields repaired
	= $18,860 / 500 windshields
	= $37.72 per windshield

Requirement 3

Yes. The actual unit cost per windshield of $37.72 is less than $50.

P16-32A

Requirements

1. Prepare an income statement for Clyde’s Pets for the year ended December 31, 2018.

2. Clyde’s Pets sold 3,850 units. Determine the unit cost of the merchandise sold, rounded to the nearest cent.

Solution:

Requirement 1

Clyde's Pets Income Statement Year Ended December 31, 2018		
Revenues:		
Sales Revenue		$ 56,000
Cost of Goods Sold:		
Beginning Merchandise Inventory	$ 15,900	
Purchases of Merchandise	25,000	
Cost of Goods Available for Sale	40,900	
Ending Merchandise Inventory	(10,100)	
Cost of Goods Sold		30,800
Gross Profit		25,200
Expenses:		
Utilities Expense	3,300	
Rent Expense	4,100	
Sales Commission Expense	2,650	
Total Expenses		10,050
Net Income		$ 15,150

Requirement 2

Unit cost	= Cost of goods sold / Total units sold
	= $30,800 / 3,850 units
	= $8.00 per unit (rounded to nearest cent)

P16-33B

Requirements

1. Which of these suggested strategies are inconsistent with IMA standards?

2. How might these inconsistencies affect the company's creditors and stakeholders'

3. What should Borzi do if Busch insists that she follow all of these suggestions?

Solution:

Students' responses will vary. Illustrative answers follow.

Requirement 1

a. If the goods have been received, postponing recording of the purchase understates liabilities. This is unethical and inconsistent with the IMA standards even if the supplier agrees to delay billing.

b. The software has not been sold. Therefore, it would be inconsistent with the IMA standards to record it as sales.

c. Delaying year-end closing incorrectly records next year's sales in this year's sales. This is unethical and inconsistent with the IMA standards.

d. The appropriate allowance for bad debts is a difficult judgment. The decision should not be driven by the desire to meet a profit goal. It should be based on the likelihood that the company will not collect the debts. We cannot determine this without more information. However, since the company emphasizes earnings growth, which can lead to sales to customers with weaker credit records, reducing the allowance seems questionable. It is not clear whether this strategy is inconsistent with the IMA standards.

e. If the maintenance is postponed, there is no transaction to record. This strategy is beyond the responsibility of the controller, so it does not violate IMA standards.

Requirement 2

The inconsistencies noted for Smart Software, Inc. particularly impact the
financial statement information provided by financial accounting to external
users, such as creditors and stockholders. They
will be led to believe the operating performance (profitability) of the company
company is better than it really is. This misrepresentation may result in the
investors holding the stock when they may have sold it with the correct
information. Similarly, creditors may grant credit to the company with the
false income information when they may not grant credit with the
correct income information.

Requirement 3

The controller should resist attempts to implement a, b, and c and should gather
more information about d. If the President ignores Borzi, then Borzi needs to
consider if she wants to work for a company that engages in unethical behavior.
Borzi should not be associated with unethical behavior and should resign.

P16-34B

Requirements

1. Describe the difference between period costs and product costs.

2. Classify Langley's costs as period costs or product costs. If the costs are product costs, further classify them as direct materials, direct labor, or manufacturing overhead.

Solution:

Requirement 1

Period costs are operating costs that are expensed in the accounting period in which they are incurred.

Product costs are all costs of a product that GAAP requires companies to treat as an asset for external financial reporting. These costs are recorded as an asset (inventory) on the balance sheet until the asset is sold. The cost is then transferred to an expense account (Cost of Goods Sold) on the income statement. Product costs include direct materials, direct labor, and manufacturing overhead.

On the income statement, Cost of Goods Sold (product cost) is subtracted from Sales Revenue to determine gross profit. The period costs are then subtracted from gross profit to determine operating income.

Requirement 2

Cost	Period Cost	Product Cost		
		Direct Materials	Direct Labor	Manufacturing Overhead
Handle and shaft of edger		X		
Motor of edger		X		
Factory labor for workers assembling edgers			X	
Lubricant used on bearings in the edger (not traced to the product)				X
Glue to hold housing together				X
Plant janitorial wages				X
Depreciation on factory equipment				X
Rent on plant				X
Sales commissions	X			
Administrative salaries	X			
Plant utilities				X
Shipping costs to deliver finished edgers to customers	X			

P16-35B

Requirements

1. Define the three business types: service, merchandising, and manufacturing.
2. Based on the data given for the two companies, determine the business type of each one.
3. Calculate the cost of goods sold for each company.

Solution:

Requirement 1

Service companies sell services rather than products. They sell time, skills, and knowledge. Merchandising companies resell products previously bought from suppliers. Manufacturing companies use labor, equipment, supplies, and facilities to convert raw materials into new finished products.

Requirement 2

Company 1 is a merchandising company. Company 2 is a manufacturing company. The company type can be determined by the account names in the ledger.

Requirement 3

Company 1:	
Beginning Merchandise Inventory	$ 11,600
Purchases	152,500
Cost of Goods Available for Sale	164,100
Ending Merchandise Inventory	(12,400)
Cost of Goods Sold	$ 151,700

Company 2:	
Beginning Finished Goods Inventory	$ 15,400
Cost of Goods Manufactured	214,500
Cost of Goods Available for Sale	229,900
Ending Finished Goods Inventory	(11,300)
Cost of Goods Sold	$ 218,600

P16-36B

Requirements

1. Prepare a schedule of cost of goods manufactured for Chewy Bones for the year ended December 31, 2018.

2. Prepare an income statement for Chewy Bones for the year ended December 31, 2018.

3. How does the format of the income statement for Chewy Bones differ from the income statement of a merchandiser?

4. Chewy Bones manufactured 17,500 units of its product in 2018. Compute the company's unit product cost for the year, rounded to the nearest cent.

Solution:

Requirement 1

Chewy Bones Schedule of Cost of Goods Manufactured Year Ended December 31, 2018			
Beginning Work-in-Process Inventory			$ 0
Direct Materials Used:			
Beginning Raw Materials Inventory	$ 13,400		
Purchases of Raw Materials	39,000		
Raw Materials Available for Use	52,400		
Ending Raw Materials Inventory	(10,500)		
Direct Materials Used		$ 41,900	
Direct Labor		16,000	
Manufacturing Overhead:			
Plant janitorial services	900		
Utilities for plant	1,200		
Rent on plant	9,000		
Total Manufacturing Overhead		11,100	
Total Manufacturing Costs Incurred during the Year			69,000
Total Manufacturing Costs to Account For			69,000
Ending Work-in-Process Inventory			(1,500)
Cost of Goods Manufactured			$ 67,500

Requirement 2

Chewy Bones Income Statement Year Ended December 31, 2018		
Revenues:		
Sales Revenue		$ 115,000
Cost of Goods Sold:		
Beginning Finished Goods Inventory	$ 0	
Cost of Goods Manufactured*	67,500	
Cost of Goods Available for Sale	67,500	
Ending Finished Goods Inventory	(5,400)	
Cost of Goods Sold		62,100
Gross Profit		52,900
Expenses:		
Sales Salaries Expense	5,100	
Delivery Expense	1,700	
Customer Service Hotline Expense	1,600	
Total Expenses		8,400
Net Income (Loss)		$ 44,500
* From the Schedule of Cost of Goods Manufactured in Requirement 1.		

Requirement 3

For a manufacturing company, cost of goods sold on the income statement is based on cost of goods manufactured and the change in Finished Goods Inventory. For a merchandising company, cost of goods sold on the income statement is based on cost of merchandise purchased (including freight in) and the change in Merchandise Inventory.

Requirement 4

Unit product cost	= Cost of goods manufactured / Total units produced
	= $67,500 / 17,500 units
	= $3.86 per unit (rounded to the nearest cent)

P16-37B

Certain item descriptions and amounts are missing from the monthly schedule of cost of goods manufactured and income statement of Charlie Manufacturing Company. Fill in the blanks with the missing words and replace the Xs with the correct amounts.

Solution:

Requirement 1

Charlie Manufacturing Company Schedule of Cost of Goods Manufactured Month Ended June 30, 2018			
Beginning Work-in-Process Inventory			$ 26,000
Direct Materials Used:			
Beginning Raw Materials Inventory	**$ 30,000**		
Purchases of Raw Materials	51,000		
Raw Materials Available for Use	81,000		
Ending Raw Materials Inventory	(26,000)		
Direct Materials Used		**$ 55,000**	
Direct Labor		**72,000**	
Manufacturing Overhead		50,000	
Total Manufacturing Costs Incurred During			
the Month			177,000
Total Manufacturing Costs to Account For			**203,000**
Ending Work-in-Process Inventory			(29,000)
Cost of Goods Manufactured			**$ 174,000**

Missing Amounts:	
Beginning Raw Materials Inventory:	
Raw Materials Available for Use	$ 81,000
Purchases of Raw Materials	(51,000)
Beginning Raw Materials Inventory	$ 30,000
Direct Materials Used:	
Raw Materials Available for Use	$ 81,000
Ending Raw Materials Inventory	(26,000)
Direct Materials Used	$ 55,000

Direct Labor:	
Total Manufacturing Costs Incurred During the Month	$ 177,000
Manufacturing Overhead	(50,000)
Direct Materials Used [calculated above]	(55,000)
Direct Labor	$ 72,000
Total Manufacturing Costs to Account For:	
Beginning Work-in-Process Inventory	$ 26,000
Total Manufacturing Costs Incurred During the Month	177,000
Total Manufacturing Costs to Account For	$ 203,000
Cost of Goods Manufactured:	
Total Manufacturing Costs to Account For [calculated above]	$ 203,000
Ending Work-in-Process Inventory	(29,000)
Cost of Goods Manufactured	$ 174,000

Requirement 2

Charlie Manufacturing Company **Income Statement** **Month Ended June 30, 2018**		
Sales Revenue		**$ 500,000**
Cost of Goods Sold:		
Beginning Finished Goods Inventory	$ 118,000	
Cost of Goods Manufactured	**174,000**	
Cost of Goods Available for Sale	**292,000**	
Ending Finished Goods Inventory	**(60,000)**	
Cost of Goods Sold		232,000
Gross Profit		268,000
Selling and Administrative Expenses:		
Selling Expenses	90,000	
Administrative Expenses	**60,000**	
Total Selling and Administrative Expenses		150,000
Operating Income		**$ 118,000**

Missing Amounts:	
Sales Revenue:	
Cost of Goods Sold	$ 232,000
Gross Profit	268,000
Sales Revenue	$ 500,000
Cost of Goods Manufactured:	
[From the Schedule of Cost of Goods Manufactured]	
Cost of Goods Available for Sale:	
Beginning Finished Goods Inventory	$ 118,000
Cost of Goods Manufactured	174,000
Cost of Goods Available for Sale	$ 292,000
Ending Finished Goods Inventory:	
Cost of Goods Available for Sale [calculated above]	$ 292,000
Cost of Goods Sold	(232,000)
Ending Finished Goods Inventory	$ 60,000
Administrative Expenses:	
Total Operating Expenses	$ 150,000
Selling Expenses	(90,000)
Administrative Expenses	$ 60,000
Operating Income:	
Gross Profit	$ 268,000
Total Selling and Administrative Expenses	(150,000)
Operating Income	$ 118,000

P16-38B

Requirements

Analyze the inventory accounts to determine:

1. Cost of direct materials purchased during the year.
2. Cost of goods manufactured for the year.
3. Cost of goods sold for the year.

Solution:

Requirement 1

Cost of raw materials purchased during the year:							
Direct Materials Used	=	Beginning Raw Materials Inventory		+	Cost of Raw Materials Purchased	–	Ending Raw Materials Inventory
Solving for cost of raw materials purchased:							
Cost of Raw Materials Purchased	=	Direct Materials Used		+	Ending Raw Materials Inventory	–	Beginning Raw Materials Inventory
	=	$	2,600,000	+	$ 800,000	–	$ 700,000
	=	$	2,700,000				

Requirement 2

Cost of goods manufactured for the year:							
Cost of Goods Manufactured	=	Beginning Work-in-Process Inventory		+	Total Manufacturing Costs Incurred	–	Ending Work-in-Process Inventory
	=	$	1,500,000	+	$ 21,900,000	–	$ 2,000,000
	=	$	21,400,000				

Requirement 3

Cost of goods sold for the year:							
Cost of Goods Sold	=	Beginning Finished Goods Inventory		+	Cost of Goods Manufactured	–	Ending Finished Goods Inventory
	=	$	1,100,000	+	$ 21,400,000	–	$ 1,080,000
					[calculated in 2]		
	=	$	21,420,000				

P16-39B

Requirements

1. Prepare an income statement for the month of July.

2. Compute the per unit cost of repairing one windshield.

3. The manager of The Glass Doctors must keep unit operating cost below $80 per windshield in order to get his bonus. Did he meet the goal?

Solution:

Requirement 1

THE GLASS DOCTORS		
Income Statement		
Month Ended July 31, 2018		
Revenues:		
Sales Revenue		$ 25,000
Expenses:		
Salaries and Wages Expense	$ 10,000	
Materials Expense	4,100	
Depreciation Expense—Truck	500	
Depreciation Expense—Building and Equipment	900	
Supplies Expense	450	
Utilities Expense	4,550	
Total Expenses		20,500
Net Income		$ 4,500

Requirement 2

Per unit cost	= Total expenses / Total windshields repaired
	= $20,500 / 250 windshields
	= $82.00 per windshield

Requirement 3

No. The actual unit cost per windshield of $82.00 is greater than $80.

P16-40B

Requirements

1. Prepare an income statement for Dillon's Pets for the year ended December 31, 2018.

2. Clyde's Pets sold 5,500 units. Determine the unit cost of the merchandise sold, rounded to the nearest cent.

Solution:

Requirement 1

Dillons's Pets Income Statement Year Ended December 31, 2018		
Revenues:		
Sales Revenue		$ 56,000
Cost of Goods Sold:		
Beginning Merchandise Inventory	$ 16,000	
Purchases of Merchandise	25,000	
Cost of Goods Available for Sale	41,000	
Ending Merchandise Inventory	(10,500)	
Cost of Goods Sold		30,500
Gross Profit		25,500
Expenses:		
Utilities Expense	3,200	
Rent Expense	4,100	
Sales Commission Expense	2,750	
Total Expenses		10,050
Net Income		$ 15,450

Requirement 2

Unit cost	= Cost of goods sold / Total units sold
	= $30,500 / 5,550 units
	= $5.50 per unit (rounded to the nearest cent)

P16-41

Using Excel

Solution:

The student templates for Using Excel are available online in MyAccountingLab
in the Multimedia Library or at http://www.pearsonhighered.com/Horngren.
The solution to Using Excel is located in MyAccountingLab in the Instructor
Resource Center or at http://www.pearsonhighered.com/Horngren.

P16-42

Prepare a schedule of cost of goods manufactured for Piedmont Computer Company for the month ended

Solution:

Piedmont Computer Company
Schedule of Cost of Goods Manufactured
Month Ended January 31, 2020

Beginning Work-in-Process Inventory			$ 0
Direct Materials Used:			
Beginning Raw Materials Inventory	$ 10,500		
Purchases of Raw Materials	16,000		
Raw Materials Available for Use	26,500		
Ending Raw Materials Inventory	(9,700)		
Direct Materials Used		$ 16,800	
Direct Labor		210,000	
Manufacturing Overhead:			
Plant janitorial services	500		
Utilities for plant	16,000		
Rent on plant	9,000		
Total Manufacturing Overhead		25,500	
Total Manufacturing Costs Incurred during the Year			252,300
Total Manufacturing Costs to Account For			252,300
Ending Work-in-Process Inventory			(17,000)
Cost of Goods Manufactured			$ 235,300

Tying It All Together Case 16-1

Requirements

1. Why would the Finished Goods Inventory be such a relatively small portion of total inventory?

2. What is the average cost of goods sold (in dollars) for a Winnebago motor home? What is t

3. If Winnebago could reduce production costs so that the average cost of goods sold is equal to their competitor's average cost of goods sold, how much more profit would Winnebago earn on each motor home sold?

4. Based on 2015 sales, how much would operating income increase if the company reduced the average cost of goods sold to equal their competitor's average cost of goods sold?

5. How could managers at Winnebago use managerial accounting to reduce costs and increase profits?

Solution:

Requirement 1

Winnebago's finished goods inventory is such a relatively small portion of total inventory because
Winnebago manufactures the RVs and then sells them to dealerships for resale to consumers.
The company does not own or operate dealerships. Therefore, Winnebago has a
relatively small portion of Finished Goods Inventory. As soon as RVs are complete, Winnebago
will want to sell them to the dealerships. The majority of Winnebago's inventory is in Raw Materials
Inventory that will be used in the manufacturing process and Work–in–Process Inventory of the
RVs started but not yet completed.

Requirement 2

Average cost of goods sold = Average sales price × Cost of goods sold % = $96,000 × 89% = $85,440.
Average gross profit = Average sales price – Average cost of goods sold = $96,000 – $85,440 = $10,560

Requirement 3

Average cost of goods sold = Average sales price × Cost of goods sold % = $96,000 × 86% = $82,560.
Average gross profit = Average sales price – Average cost of goods sold = $96,000 – $82,560 =
$13,440. Profits would increase by $2,880 ($13,440 – $10,560) per motor home sold.

Requirement 4

Total increase in operating income = Average increase in profits per motor home × Number of motor
homes = $2,880 per motor home × 9,097 motor homes = $26,199,360.

Requirement 5

Managerial accounting provides detailed information on all costs incurred by the company. Managers
can use the information provided to analyze different types of costs, such as product costs and period
costs, to determine where actual costs exceeded expected costs and then consider options to reduce those
costs.

Decision Case 16-1

Requirements

Analyze the inventory accounts to determine:

1. Prepare a schedule showing each inventory account and the increases and decreases to each account. Use it to determine the ending inventories of Raw Materials, Work-in-Process, and Finished Goods.
2. Itemize a list of the cost of inventory lost.

Solution:

Requirement 1

Shown in the schedule, below, the ending inventories are: Raw Materials Inventory, $143,000; Work-in-Process Inventory, $239,000; and Finished Goods Inventory, $150,000.

POWER SWITCH, INC.
Flow of Costs Schedule

Raw Materials Inventory		Work-in-Process Inventory		Finished Goods Inventory	
Beginning Inventory	$ 113,000 *	Beginning Inventory	$ 229,000 *	Beginning Inventory	$ 154,000 *
+ Purchases	476,000 *	+ Direct Mat. Used	446,000 [e]	+ Cost of Goods Manufactured	1,186,000 [c]
		+ Direct Labor	505,000 *		
		+ Manufacturing Overhead	245,000 *		
= Raw Mat. Available for Use	589,000	= Total Manufacturing Costs to Account For	1,425,000 *	= Cost of Goods Available for Sale	1,340,000 *
− End. Inventory	143,000 [f]	− Ending Inventory	239,000 [d]	− Ending Inventory	150,000 [b]
= Direct Materials Used	$ 446,000 [e]	= Cost of Goods Manufactured	$ 1,186,000 [c]	= Cost of Goods Sold	$ 1,190,000 [a]

* Denotes amounts given in the case.
Calculations for amounts denoted with a superscript letters are provided below.

Calculations:

[a] Cost of Goods Sold:				
Sales	×	(1 – Gross Profit %)	=	Cost of Goods Sold
$1,700,000	×	(1 – 30%)	=	$1,190,000
$1,700,000	×	70%	=	$1,190,000
[b] Ending Finished Goods Inventory:				
Cost of Goods Available for Sale	–	Ending Finished Goods Inventory	=	Cost of Goods Sold
$1,340,000	–	Ending Finished Goods Inventory	=	$1,190,000
Therefore:		Ending Finished Goods Inventory	=	$150,000
[c] Cost of Goods Manufactured:				
Beginning Finished Goods Inventory	+	Cost of Goods Manufactured	=	Available for Sale
$154,000	+	Cost of Goods Manufactured	=	$1,340,000
Therefore:		Cost of Goods Manufactured	=	$1,186,000
[d] Ending Work-in-Process Inventory:				
Total Manufacturing Costs to Account For	–	Ending Work-in-Process Inventory	=	Cost of Goods
$1,425,000	–	Ending Work-in-Process Inventory	=	$1,186,000
Therefore:		Ending Work-in-Process Inventory	=	$239,000
[e] Direct Materials Used:				
Beginning Work-in-Process Inventory	+	Direct Materials Used + Direct Labor + Manufacturing Overheads	=	Cost of Goods
$229,000	+	Direct Materials Used + $505,000 $245,000	=	$1,425,000
Therefore:		Direct Materials Used	=	$446,000
[f] Ending Raw Materials Inventory:				
Raw Materials Available for Use	–	Ending Raw Materials Inventory	=	Direct Materials Used
$589,000	–	Ending Raw Materials Inventory	=	$446,000
Therefore:		Ending Raw Materials Inventory	=	$143,000

Requirement 2

Inventory lost in the flood:	
Raw Materials Inventory	$ 143,000
Work-in-Process Inventory	239,000
Finished Goods Inventory	150,000
Total Inventory	$ 532,000

Ethical Issue 16-1

Requirements

1. What is the ethical issue?
2. What are your options?
3. What are the possible consequences?
4. What should you do?

Solution:

Students' responses will vary. Illustrative answers follow.

a. The ethical issue facing Becky is deciding what to do about the gifts to the sales managers. Although small "courtesy" gifts are accepted practice in the world of sales, the regular basis and the high value of these items (especially jewelry) suggest that the owner is bribing the sales managers and other sales executives to receive a large allocation of cars.

b. The options include:
   (1) Do nothing,
   (2) Discuss the matter with the owner,
   (3) Resign if the owner will not stop the practice, or
   (4) Inform the manufacturer.

c. The possible consequences include:
   (1) If Becky does nothing, her job and those of the other employees may remain secure for the time being. However, as controller she could be held accountable for laundering a bribe if the scheme became public. A lawsuit brought by other dealers who did not receive a fair share of available cars could name her as an involved party. If Becky is a CPA, she could also lose her CPA license.

   (2) If Becky discusses the matter with the owner, she might find out that there is another side to the story and in fact there is no wrongdoing or ethical dilemma. However, this seems unlikely given the facts. It also seems unlikely that the owner will end this practice since it enhances the dealership's profits. However, Becky may have some influence on Mueller if she explains the dangers of continuing the bribes. Mueller could be sued by other dealers, or the manufacturer could cancel his dealership. Such outcomes would affect all the dealership's employees, not just Mueller. If Mueller refuses to change his ways, then Becky is in an even more difficult position because she now has direct knowledge of the bribery.

(3) By resigning, Becky loses her job but protects her integrity and avoids being involved in a subsequent action against the dealership if the bribery becomes known.

(4) Perhaps an even more difficult question is whether Becky should inform the manufacturer about the bribery. If Becky has not already resigned, Mueller probably would fire her for taking this action.

d. Accountants should never become party to, or appear to be involved in, an unethical (and possibly illegal) situation such as this. This is especially true for persons with fiduciary responsibilities like a controller. Becky should discuss her concerns with the owner. If Mueller is indeed bribing the sales representatives and refuses to stop this practice, Becky should inform the manufacturer, or she should resign.

Communication Activity 16-1

In 100 words or fewer, explain the difference between product costs and period costs.In your explanation, explain the inventory accounts of a manufacturer.

Solution:

Period costs are operating costs that are expensed in the same accounting period in which they are incurred, whereas product costs are recorded as an asset and not expensed until the accounting period in which the product is sold. Period costs are all costs not considered product costs.

Manufacturing companies track costs on three kinds of inventory. Raw Materials Inventory includes materials used to manufacture a product. Work-in-Process Inventory includes goods that have been started in the manufacturing process but are not yet complete. Finished Goods Inventory includes completed goods that have not yet been sold.

Appendix B

Accounting Information Systems

Directed Reading Guide

LO1. What is an accounting information systems?

a) An effective accounting information system provides:

   i) **Control**

   ii) **Compatibility**

   iii) **Flexibility**

   iv) **Relevance**

   v) **Positive cost / benefit relationship**

b) Components of an accounting information system are:

   i) **Source documents and input devices**

   ii) **Processing and storage**

   iii) **Outputs**

In MyAccountingLab, complete Try It! B-1 and SB-1 and SB-2.

LO2. How are sales and cash receipts recorded in a manual accounting information system?

a) Given the following transactions, indicate which journal (cash receipts or sales) the transaction should be recorded in.

   ___**cash receipts**__ The sale of merchandise for cash.

   ___**sales**_________ The sale of merchandise on account.

b) Briefly explain the purpose of a subsidiary ledger for accounts receivable. **The subsidiary ledgers for accounts receivable is an accounts receivable account for each customer so that the balance of each customer can be kept.**

In MyAccountingLab, complete Try It! B-2 and SB-3 and SB-7.

LO3. How are purchases, cash payments, and other transactions recorded in a manual accounting information system?

a) Given the following transactions, indicate which journal (cash payments or purchases) the transaction should be recorded in.

___**purchases**______ The purchases of supplies on account.

___**cash payments**__ The purchases of supplies with cash.

b) What type of transactions would be recorded in the general journal, even when special journals are used by the business? **Adjusting entries, closing entries, and other possible entries (for examples returns not involving cash).**

In MyAccountingLab, complete Try It! B-3 and SB-8 through SB-12.

LO4. How are transactions recorded in a computerized accounting information system?

a) What are the two basic components to a computerized accounting information system?

i) **Hardware**

ii) **Software**

b) Briefly describe an enterprise resource planning (ERP) system. **A software system that can integrate all of a company's functions, departments, and data into a single system.**

In MyAccountingLab, complete Try It! B-4 and SB-13.

Appendix B

Accounting Information Systems

Directed Reading Guide

LO1. What is an accounting information systems?

a) An effective accounting information system provides:

i)

ii)

iii)

iv)

v)

b) Components of an accounting information system are:

i)

ii)

iii)

In MyAccountingLab, complete Try It! B-1 and SB-1 and SB-2.

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a) Given the following transactions, indicate which journal (cash receipts or sales) the transaction should be recorded in.

_________________ The sale of merchandise for cash.

_________________ The sale of merchandise on account.

b) Briefly explain the purpose of a subsidiary ledger for accounts receivable.

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a) What are the two basic components to a computerized accounting information system?

i)

ii)

b) Briefly describe an enterprise resource planning (ERP) system.

In MyAccountingLab, complete Try It! B-4 and SB-13.

Chapter 16

Introduction to Managerial Accounting

Directed Reading Guide

LO1. Why is managerial accounting important?

a) Identify as a focus of Managerial (M) or Financial (F) accounting:

   i) Primarily for internal users __**M**__

   ii) Primarily for external users ___**F**___

   iii) Follows GAAP rules ___**F**___

   iv) Summary reports of the entire company ___**F**___

   v) Concerned about how reports will affect employee behavior ___**M**___

b) Managers need information for?

   i) **Planning**

   ii) **Strategic Planning**

   iii) **Operational Planning**

   iv) **Directing**

   v) **Controlling**

In MyAccountingLab, complete Try It! 16-1 and S16-1 and S16-2.

LO2. How are costs classified?

a) Manufacturing (product) costs categories are:

   i) **Direct Materials**

   ii) Direct Labor

   iii) **Manufacturing Overhead**

b) ___**Prime costs**____ combines direct materials and direct labor.

c) ____**Conversion Costs**___ combines direct labor and manufacturing overhead.

d) Selling and administrative expenses are referred to as ___**Period Costs**____.

In MyAccountingLab, complete Try It! 16-2 and S16-3 through S16-5.

LO3. How do manufacturing companies prepare financial statement?

a) Identify if the item is part of the Cost of Goods Manufactured (COGM) or the Cost of Goods Sold (COGS):

i) Beginning Finished Goods Inventory ___**COGS**___

ii) Direct Materials Used ___**COGM**___

iii) Direct Labor ___**COGM**___

iv) Beginning Work-in-Process Inventory ___**COGM**___

b) If beginning Finished Good Inventory is $2,000, ending Finished Goods Inventory is $3,000, and Cost of Goods Manufactured is $10,000, what is Cost of Gods Sold?

$2,000 + $10,000 - $3,000 = $9,000

In MyAccountingLab, complete Try It! 16-3 and S16-6 through S16-10.

LO4. What are business trends that are affecting managerial accounting?

a) Which business trend to you think is affecting managerial accounting the most in today's business's and why? **Student answers will vary.**

b) Pick an activity in the value chain and describe how it can add value to a product (you may pick a product to use as part of your example). **Student answers will vary.**

In MyAccountingLab, complete Try It! 16-11.

LO5. How is managerial accounting used in service and merchandising companies?

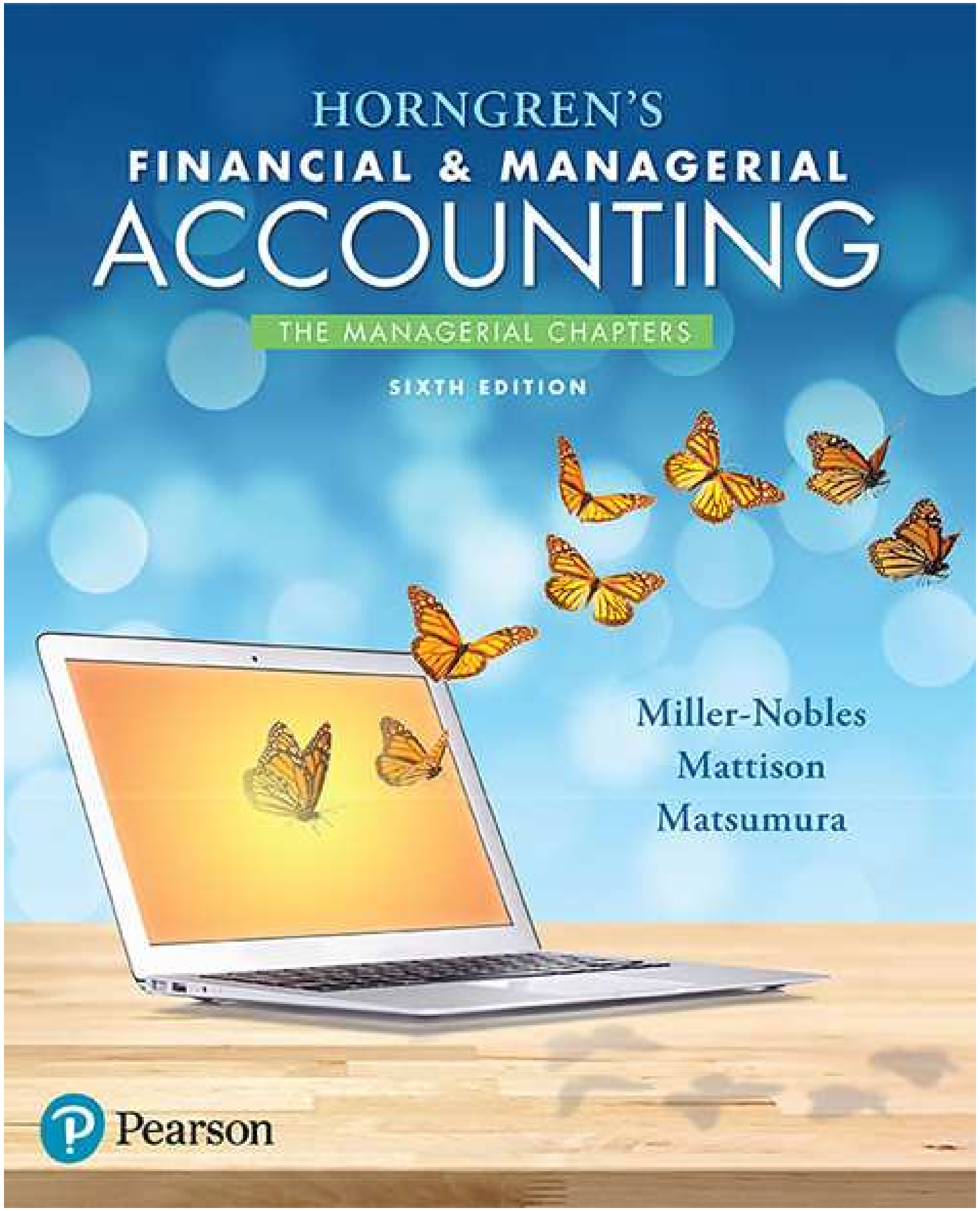
a) ABC Company has incurred costs of $4,000 and provided service to 1,000 customers, what is the cost per service?

   $4,000 / 1,000 = $4 per service

b) ABC Company sold 300 bottles of water that costs $150 to purchase, what is the cost per water bottle?

   $150 / 300 bottles = .50 per bottle

In MyAccountingLab, complete Try It! 16-12.



Chapter 16
Introduction to Managerial Accounting

Chapter 16 Learning Objectives

1. Define managerial accounting and understand how it is used
2. Classify costs used in managerial accounting
3. Prepare financial statements for a manufacturer, including a balance sheet, income statement, and schedule of cost of goods manufactured

Chapter 16 Learning Objectives

4. Describe business trends affecting managerial accounting
5. Describe how managerial accounting is used in service and merchandising companies

Learning Objective 1

Define managerial accounting and understand how it is used

WHY IS MANAGERIAL ACCOUNTING IMPORTANT?

- Managerial accounting focuses on providing information for internal decision makers.
  - It helps managers make decisions needed to be successful.
- Financial accounting focuses on providing information for external decision makers.
  - Managers use financial accounting to report monetary transactions and prepare financial statements.

WHY IS MANAGERIAL ACCOUNTING IMPORTANT?

Exhibit 16-1 | **Financial Accounting Versus Managerial Accounting**

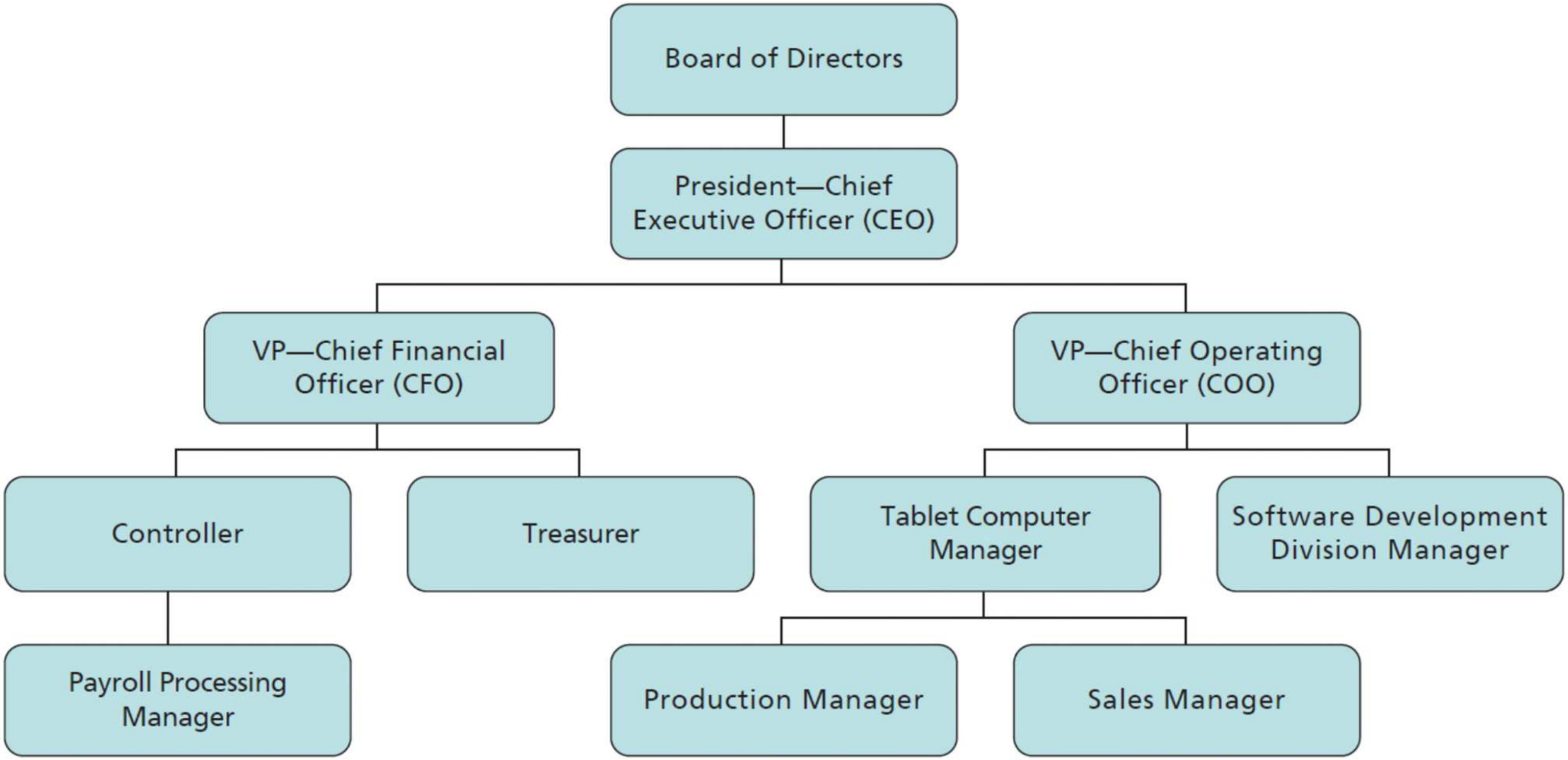
	Financial Accounting	Managerial Accounting
Primary users	External—investors, creditors, and government authorities	Internal—the company's managers and employees
Purpose of information	Help investors and creditors make investment and credit decisions	Help managers and employees plan, direct, and control operations
Focus and time dimension of the information	Relevant and faithfully representative information and focus on the past Example: 2017 actual performance reported in 2018	Relevant information and focus on the future Example: 2018 budget prepared in 2017
Rules and restrictions	Required to follow Generally Accepted Accounting Principles (GAAP); public companies required to be audited by an independent CPA	Not required to follow GAAP
Scope of information	Summary reports prepared primarily on the company as a whole, usually on a quarterly or annual basis	Detailed reports prepared on parts of the company (products, departments, territories), often on a daily or weekly basis
Behavioral	Concern about adequacy of disclosures; behavioral implications are secondary	Concern about how reports will affect employee behavior

Managers' Role in the Organization

- Managers occur in all different parts of a company's structure.
- Most companies structure their organization along departments or divisions.
- A company's organizational chart helps show the relationship between departments and divisions and the managers who are responsible for each section.

Managers' Role in the Organization

Exhibit 16-2 | **Organizational Chart for Smart Touch Learning (Partial)**



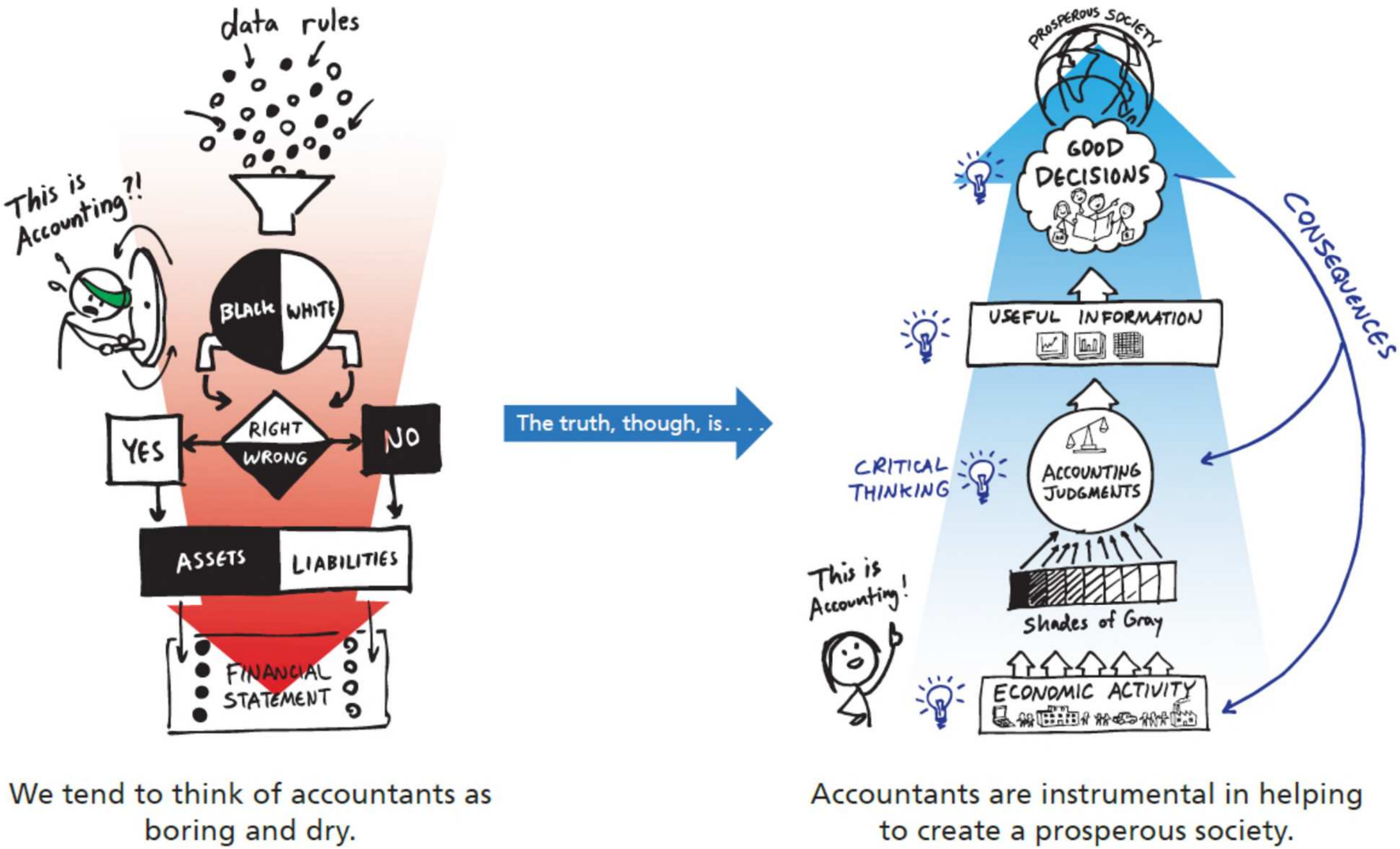
Managers' Role in the Organization

- The board of directors is elected by the stockholders and is responsible for developing the strategic goals of the corporation.
- The chief executive officer (CEO) has ultimate responsibility for implementing the company's short- and long-term plans.
- Each position in a company can be classified as either a line or staff position.
  - Line positions are directly involved in providing goods or services to customers.
  - Staff positions support the line positions.

Managerial Accounting Functions

- Planning means choosing goals and deciding how to achieve them.
  - Strategic planning involves developing long-term strategies to achieve a company's goals.
  - Operational planning focuses on short-term actions dealing with a company's day-to-day operations.
- Directing involves running the day-to-day operations of a business.
- Controlling is the process of monitoring day-to-day operations and keeping the company on track.

Exhibit 16-3 Pathways Vision Model



This work is by The Pathways Commission. The Pathways Vision Model: AI artwork: AAA Commons. American Accounting Association.

Ethical Standards of Managers

- The Institute of Management Accountants (IMA) has developed standards that managerial accountants are expected to uphold when faced with ethical challenges.
  - Maintain their professional competence.
  - Preserve the confidentiality of the information they handle.
  - Act with integrity and credibility.

Ethical Standards of Managers

- To resolve ethical dilemmas, the IMA suggests following organizationally established policies.
- If the policies do not result in a resolution, the IMA recommends discussing the ethical situation with:
  - An immediate supervisor
  - An objective adviser
  - An attorney

Exhibit 16-4 | IMA Statement of Ethical Professional Practice (Excerpt)

Management accountants have a commitment to ethical professional practice which includes principles of Honesty, Fairness, Objectivity, and Responsibility. The standards of ethical practice include the following:

I. COMPETENCE

1. Maintain an appropriate level of professional expertise by continually developing knowledge and skills.
2. Perform professional duties in accordance with relevant laws, regulations, and technical standards.
3. Provide decision support information and recommendations that are accurate, clear, concise, and timely.
4. Recognize and communicate professional limitations or other constraints that would preclude responsible judgment or successful performance of an activity.

II. CONFIDENTIALITY

1. Keep information confidential except when disclosure is authorized or legally required.
2. Inform all relevant parties regarding appropriate use of confidential information. Monitor subordinates' activities to ensure compliance.
3. Refrain from using confidential information for unethical or illegal advantage.

III. INTEGRITY

1. Mitigate actual conflicts of interest, regularly communicate with business associates to avoid apparent conflicts of interest. Advise all parties of any potential conflicts.
2. Refrain from engaging in any conduct that would prejudice carrying out duties ethically.
3. Abstain from engaging in or supporting any activity that might discredit the profession.

IV. CREDIBILITY

1. Communicate information fairly and objectively.
2. Disclose all relevant information that could reasonably be expected to influence an intended user's understanding of the reports, analyses, or recommendations.
3. Disclose delays or deficiencies in information, timeliness, processing, or internal controls in conformance with organization policy and/or applicable law.

Source: "IMA Statement of Ethical Professional Practice 2012" IMA, Montvale, New Jersey. www.imanet.org

Learning Objective 2

Classify costs used in managerial accounting

HOW ARE COSTS CLASSIFIED?

- Service companies sell their time, skill, and knowledge.
- Merchandising companies resell products they previously bought from suppliers.
- Manufacturing companies use labor, equipment, supplies, and facilities to convert raw materials into finished products.

Manufacturing Companies

- Manufacturing companies have three kinds of inventory:
  - Raw Materials Inventory (RM) includes materials used to make a product.
  - Work-in-Process Inventory (WIP) includes goods that are in the manufacturing process but are not yet complete.
  - Finished Goods Inventory (FG) includes completed goods that have not yet been sold.

Direct and Indirect Costs

- A direct cost is a cost that can be easily and cost-effectively traced to a cost object.
  - A cost object is anything for which managers want a separate measurement of cost.
- Costs that cannot be easily or cost-effectively traced directly to a cost object are indirect costs.

Manufacturing Costs

- Direct materials (DM) are raw materials used in production.
- Direct labor (DL) is labor of employees working on the products.
- Manufacturing overhead (MOH) is the indirect product costs associated with production, including:
  - Indirect materials
  - Indirect labor
  - Factory costs for rent, utilities, insurance, etc.

Manufacturing Costs

Exhibit 16-5 | Manufacturing Costs

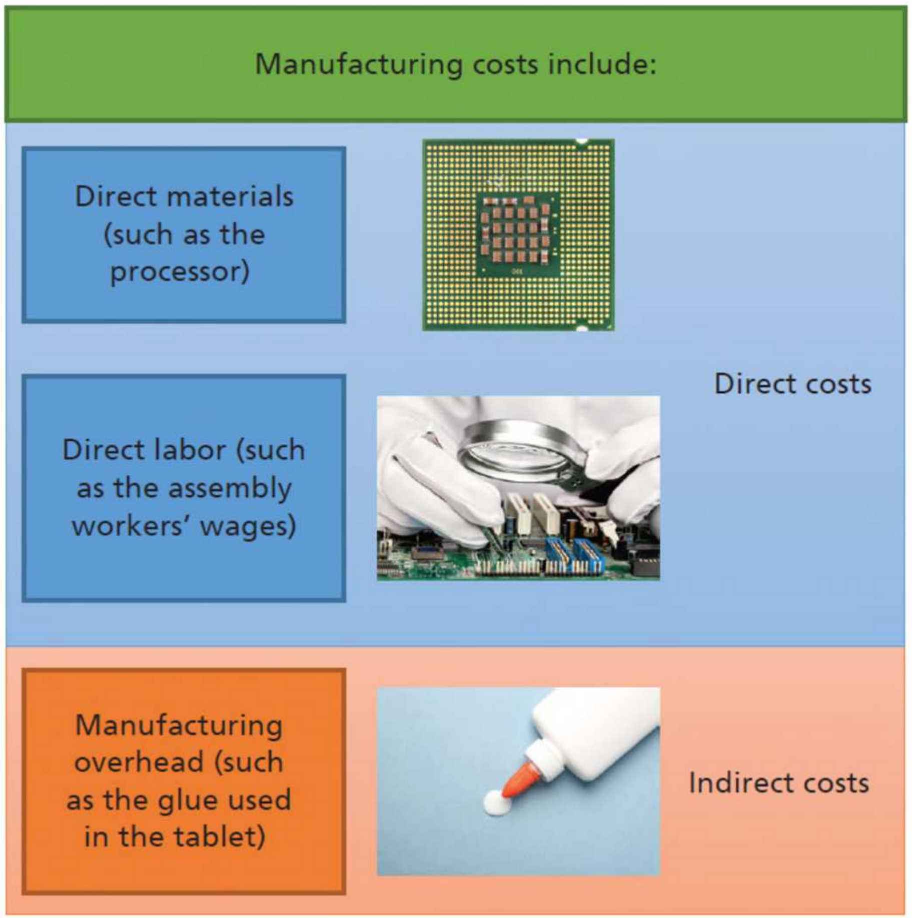
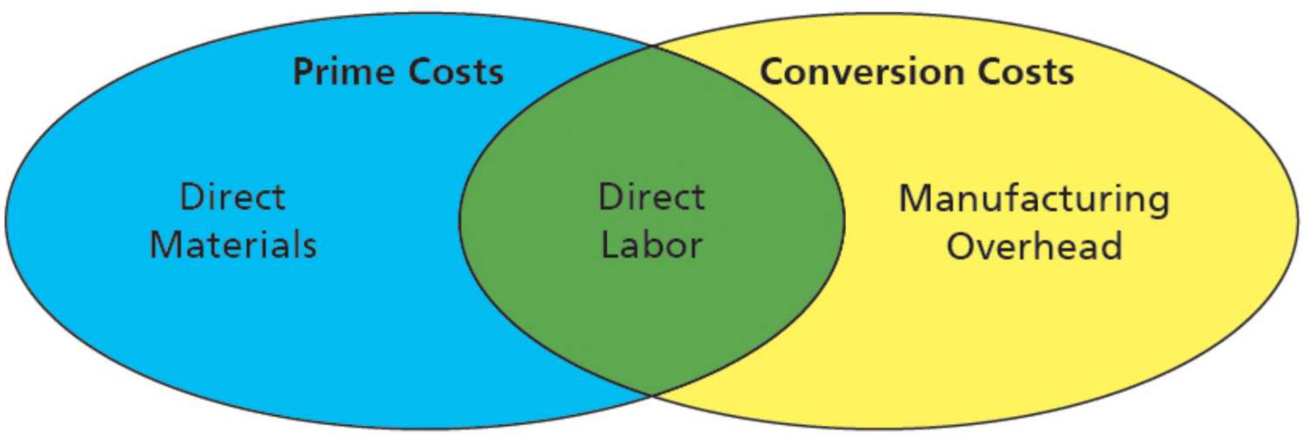


Exhibit 16-5 illustrates the three different manufacturing costs and the difference between direct and indirect costs.

Prime and Conversion Costs

- Prime costs combine the direct costs of direct materials and direct labor.
- Conversion costs combine direct labor with manufacturing overhead.

Exhibit 16-6 | **Prime and Conversion Costs**



Product and Period Costs

- Product costs include the costs of purchasing or making a product.
  - Direct materials, direct labor, and manufacturing overhead
- Period costs are non-manufacturing costs.
  - Selling and administrative expenses and other expenses such as taxes and interest

Exhibit 16-7 | **Period Versus Product Costs**

Period costs: non-manufacturing costs	Product costs: manufacturing costs
Selling expenses (such as a marketer's salary)	Direct materials (such as the processor)
Administrative expenses (such as rent on an administrative building)	Direct labor (such as the assembly workers' wages)
	Manufacturing overhead (such as the glue used in the tablet)
Expensed when incurred.	Recorded first as an asset. Expensed when sold.



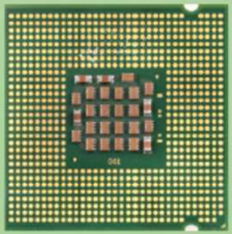


Exhibit 16-8 | **Period and Product Costs for Smart Touch Learning**

Cost Incurred	Period Costs	Product Costs		
	Selling and Administrative	Direct Materials	Direct Labor	Manufacturing Overhead
Depreciation on manufacturing equipment				X
Depreciation on office equipment	X			
Advertising	X			
Property taxes and insurance on office	X			
Property taxes and insurance on factory				X
Production supervisor's salary				X
CEO's salary	X			
Wages for assembly line workers			X	
Batteries, processors, and other materials used in making tablets		X		
Manufacturing supplies				X
Freight costs on purchase of materials		X		
Delivery expense	X			

Overhead costs can be confusing. For example, for a service or merchandising company, the cost of rent is a period cost and is classified as a selling and administrative expense. For a manufacturing company, you must consider the reason for the cost. If the rent is for the corporate office, it is still a period cost. However, if the rent is for the factory, then it is a product cost because it is a cost incurred in the manufacturing process. Because the rent is neither direct materials nor direct labor, it is classified as manufacturing overhead.

Learning Objective 3

Prepare financial statements for a manufacturer, including a balance sheet, income statement, and schedule of cost of goods manufactured

HOW DO MANUFACTURING COMPANIES PREPARE FINANCIAL STATEMENTS?

Balance Sheet

- Service companies carry no inventories on their balance sheet.
- Merchandising companies record the cost of inventory purchased as an asset, Merchandise Inventory, on their balance sheet.
- Manufacturing companies keep track of costs using three inventory accounts: Raw Materials Inventory, Work-in-Process Inventory, and Finished Goods Inventory.

Balance Sheet

Exhibit 16-9 | **Balance Sheet Comparison**

Service Company Balance Sheet (Partial) December 31, 2019			**Merchandising Company** Balance Sheet (Partial) December 31, 2019			**Manufacturing Company** Balance Sheet (Partial) December 31, 2019		
Assets			**Assets**			**Assets**		
Cash	$ 10,500		Cash	$ 10,500		Cash	$ 10,500	
Accounts Receivable	8,750		Accounts Receivable	8,750		Accounts Receivable	8,750	
Equipment	60,000		Merchandise Inventory	2,200		Raw Materials Inventory	1,500	
			Equipment	60,000		Work-in-Process Inventory	800	
						Finished Goods Inventory	2,200	
						Equipment	60,000	
Total Assets		$ 79,250	Total Assets		$ 81,450	Total Assets		$ 83,750

Income Statement

- Service companies only record period costs such as salaries expense and rent expense.
- Merchandising companies and manufacturing companies report Cost of Goods Sold as the major expense.
  - Because a manufacturer makes the product it sells, the calculation of cost of goods sold is different for manufacturing companies than for merchandising companies.

Income Statement

Exhibit 16-10 | **Income Statement Comparison**

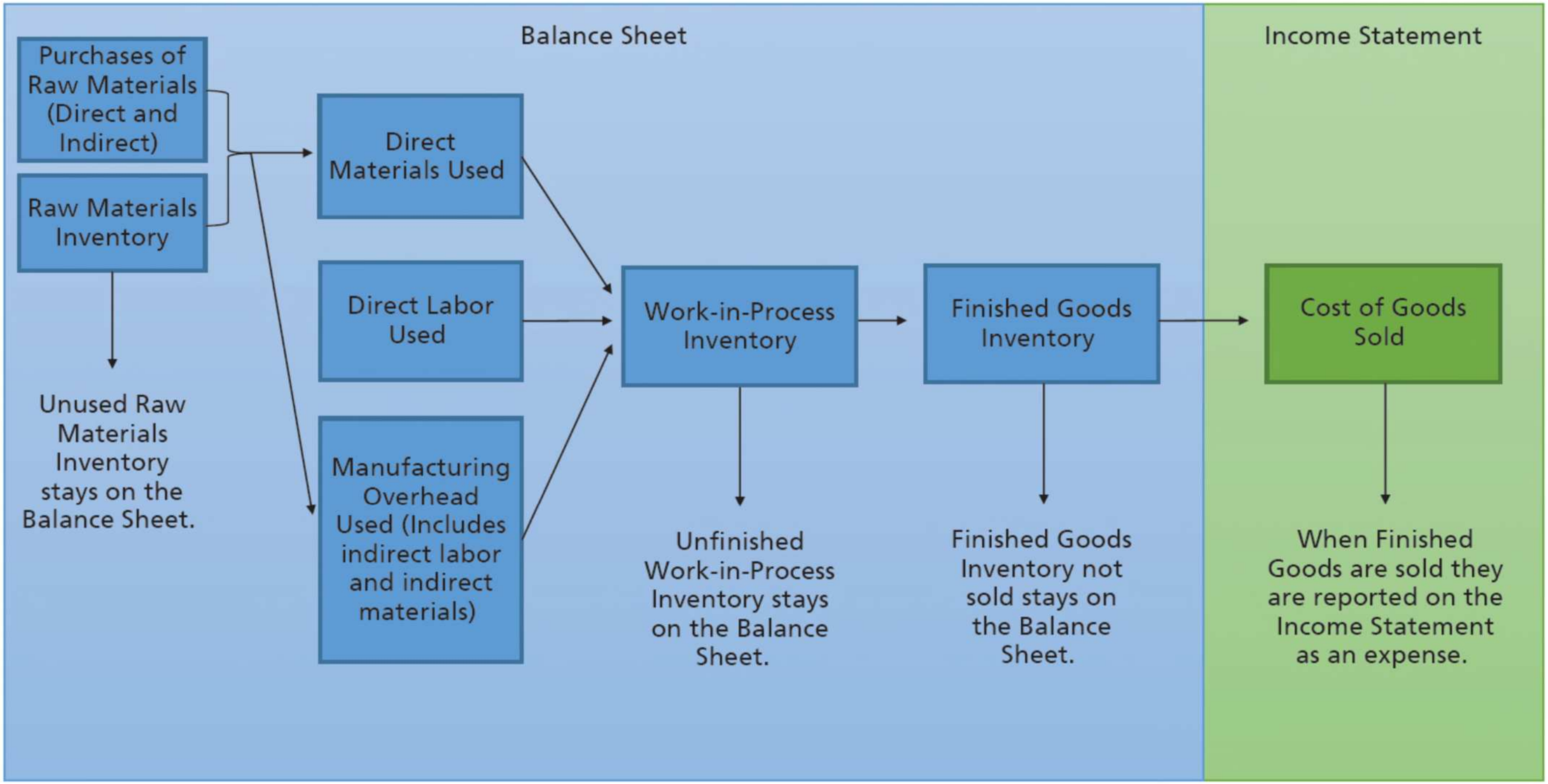
Service Company Income Statement Month Ended December 31, 2019		
Revenues:		
Service Revenue		$ 7,600
Expenses:		
Salaries Expense	$ 3,800	
Rent Expense	1,000	
Utilities Expense	400	
Total Expenses		5,200
Operating Income		$ 2,400

Merchandising Company Income Statement Month Ended December 31, 2019		
Revenues:		
Sales Revenue		$ 7,600
Cost of Goods Sold:		
Beginning Merchandise Inventory	$ 2,000	
Purchases and Freight In	3,800	
Cost of Goods Available for Sale	5,800	
Ending Merchandise Inventory	(2,200)	
Cost of Goods Sold		3,600
Gross Profit		4,000
Selling and Administrative Expenses		1,600
Operating Income		$ 2,400

Manufacturing Company Income Statement Month Ended December 31, 2019		
Revenues:		
Sales Revenue		$ 7,600
Cost of Goods Sold:		
Beginning Finished Goods Inventory	$ 2,000	
Cost of Goods Manufactured	3,800	
Cost of Goods Available for Sale	5,800	
Ending Finished Goods Inventory	(2,200)	
Cost of Goods Sold		3,600
Gross Profit		4,000
Selling and Administrative Expenses		1,600
Operating Income		$ 2,400

Product Costs Flow Through a Manufacturing Company

Exhibit 16-11 | **Product Costs Flow through Manufacturing Company**



Calculating Cost of Goods Manufactured

- Cost of goods manufactured is the manufacturing costs of the goods that finished the production process in a given accounting period.
- Three calculation steps:
  - Step 1: Calculate direct materials used.
  - Step 2: Calculate total manufacturing costs incurred during the year.
  - Step 3: Calculate cost of goods manufactured.

Calculating Cost of Goods Manufactured

Step 1: Calculate direct materials used.

Beginning Direct Materials	$ 70,000
Purchases of Direct Materials (Including Freight In)	350,000
Direct Materials Available for Use	420,000
Ending Direct Materials	(65,000)
Direct Materials Used	$ 355,000

Calculating Cost of Goods Manufactured

Step 2: Calculate total manufacturing costs incurred during the year.

Direct Materials Used		$ 355,000
Direct Labor		169,000
Manufacturing Overhead:		
Indirect Materials	$ 17,000	
Indirect Labor	28,000	
Depreciation—Plant and Equipment	20,000	
Plant Utilities, Insurance, and Property Taxes	18,000	
Total Manufacturing Overhead		83,000
Total Manufacturing Costs Incurred during the Year		$ 607,000

Calculating Cost of Goods Manufactured

Step 3: Calculate cost of goods manufactured.

Beginning Work-in-Process Inventory	$ 80,000
Total Manufacturing Costs Incurred during the Year	607,000
Total Manufacturing Costs to Account for	687,000
Ending Work-in-Process Inventory	(27,000)
Cost of Goods Manufactured	$ 660,000

Exhibit 16-12 | **Schedule of Cost of Goods Manufactured**

SMART TOUCH LEARNING Schedule of Cost of Goods Manufactured Year Ended December 31, 2020			
Beginning Work-in-Process Inventory			$ 80,000
Direct Materials Used:			
Beginning Direct Materials	$ 70,000		
Purchases of Direct Materials (including Freight In)	350,000		
Direct Materials Available for Use	420,000		
Ending Direct Materials	(65,000)		
Direct Materials Used		$ 355,000	
Direct Labor		169,000	
Manufacturing Overhead:			
Indirect Materials	17,000		
Indirect Labor	28,000		
Depreciation—Plant and Equipment	20,000		
Plant Utilities, Insurance, and Property Taxes	18,000		
Total Manufacturing Overhead		83,000	
Total Manufacturing Costs Incurred during the Year			607,000
Total Manufacturing Costs to Account For			687,000
Ending Work-in-Process Inventory			(27,000)
Cost of Goods Manufactured			**$ 660,000**

Calculating Cost of Goods Sold

- Cost of goods sold represents the cost of the Finished Goods Inventory that has been sold.
- Assume that Smart Touch Learning has beginning Finished Goods Inventory of $0 and ending Finished Goods Inventory of $60,000.

Beginning Finished Goods Inventory	$ 0
Cost of Goods Manufactured	660,000
Cost of Goods Available for Sale	660,000
Ending Finished Goods Inventory	(60,000)
Cost of Goods Sold	$ 600,000

Exhibit 16-13 | **Income Statement—Manufacturing Company**

Calculating Cost of Goods Sold

SMART TOUCH LEARNING Income Statement Year Ended December 31, 2020		
Net Sales Revenue		$ 1,000,000
Cost of Goods Sold:		
Beginning Finished Goods Inventory	$ 0	
Cost of Goods Manufactured	660,000	
Cost of Goods Available for Sale	660,000	
Ending Finished Goods Inventory	(60,000)	
Cost of Goods Sold		600,000
Gross Profit		400,000
Selling and Administrative Expenses:		
Wages Expense	120,000	
Rent Expense	100,000	
Insurance Expense	10,000	
Depreciation Expense	6,000	
Supplies Expense	5,000	
Total Selling and Administrative Expenses		241,000
Operating Income		159,000
Other Income and (Expenses):		
Interest Expense		(7,600)
Income Before Income Tax Expense		151,400
Income Tax Expense		53,000
Net Income		**$ 98,400**

COGS is a product cost.

S&A Expenses, Interest Expense, and Income Tax Expense are period costs.

Flow of Costs Through the Inventory Accounts

Exhibit 16-14 summarizes the flow of costs through Smart Touch Learning's inventory accounts.

Exhibit 16-14 | **Flow of Costs Through Smart Touch Learning's Inventory Accounts**

Raw Materials Inventory*		Work-in-Process Inventory		Finished Goods Inventory	
Beginning Direct Materials	$ 70,000	Beginning WIP Inventory	$ 80,000	Beginning FG Inventory	$ 0
+ Purchases of Direct Materials (including Freight In)	350,000	+ Direct Materials Used	355,000	+ Cost of Goods Manufactured	660,000
= Direct Materials Available for Use	420,000	+ Direct Labor	169,000	= Cost of Goods Available for Sale	660,000
− Ending Direct Materials	(65,000)	+ Manufacturing Overhead	83,000	− Ending FG Inventory	(60,000)
= Direct Materials Used	$ 355,000	= Total Manufacturing Costs to Account For	687,000	= Cost of Goods Sold	$ 600,000
		− Ending WIP Inventory	(27,000)		
		= Cost of Goods Manufactured	$ 660,000		

*Direct materials portion only

Using the Schedule of Cost of Goods Manufactured to Calculate Unit Product Cost

Managers can use the schedule of cost of goods manufactured to calculate the unit product cost.

- Smart Touch Learning produced 2,200 tablets during 2020.

Cost of goods manufactured	/	Total units produced	=	Unit product cost
$660,000	/	2,200 tablets	=	$300 per tablet

- During 2020, Smart Touch Learning sold 2,000 tablets.

Number of units sold	×	Unit product cost	=	Cost of Goods Sold
2,000 tablets	×	$300 per tablet	=	$600,000

Learning Objective 4

Describe business trends affecting managerial accounting

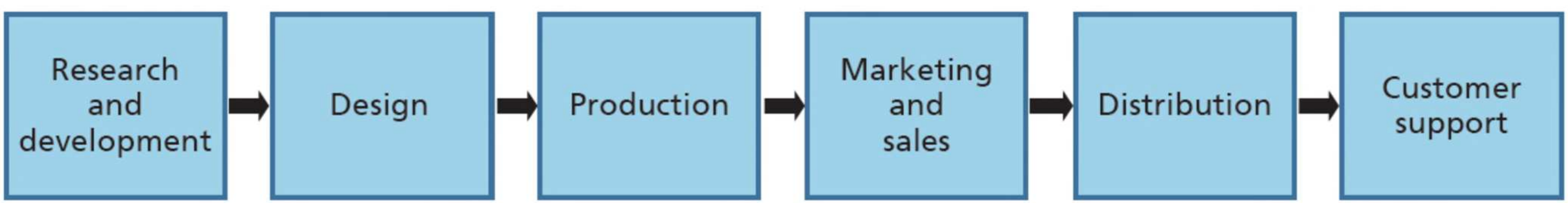
WHAT ARE BUSINESS TRENDS THAT ARE AFFECTING MANAGERIAL ACCOUNTING?

- Shift toward a service economy
- Global competition
- Time-based competition:
  - Enterprise Resource Planning (ERP) systems integrate companies' data.
  - E-commerce allows companies to sell products to customers around the world.
  - Just-in-Time (JIT) Management is an inventory management tool.

Total Quality Management

- Total Quality Management (TQM) is a philosophy of continuous improvement in products and processes.
  - It creates a culture of cooperation.
  - Each step adds value to the end product, and this is referred to as the value chain.

Exhibit 16-15 | Value Chain



The Triple Bottom Line

- The economic, social, and environmental impact of doing business is referred to as the triple bottom line, which includes:
  - Profits
  - People
  - Planet
- Increasingly, customers and stockholders are choosing to support companies based on their labor practices, community service, and sustainable environmental practices.

Learning Objective 5

Describe how managerial accounting is used in service and merchandising companies

HOW IS MANAGERIAL ACCOUNTING USED IN SERVICE AND MERCHANDISING COMPANIES?

Managers of service and merchandising organizations make decisions on pricing based on cost per service or cost per item.

- In 2018, Smart Touch Learning incurred costs of $3,900 and provided 1,950 e-learning services. In December 2019, Smart Touch Learning sold 260 tablets.

Total costs	**/**	**Total number of services provided**	**=**	**Unit cost per service**
$3,900	/	1,950 services	=	$2 per service

Total cost of goods sold	**/**	**Total number of items sold**	**=**	**Unit cost per item**
$90,800	/	260 tablets	=	$349.23 per tablet