

Math Lit 3rd edition Almy Test Bank

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INSTRUCTOR'S RESOURCE MANUAL

WITH CONTRIBUTIONS FROM

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MATH LIT A PATHWAY TO COLLEGE MATHEMATICS THIRD EDITION

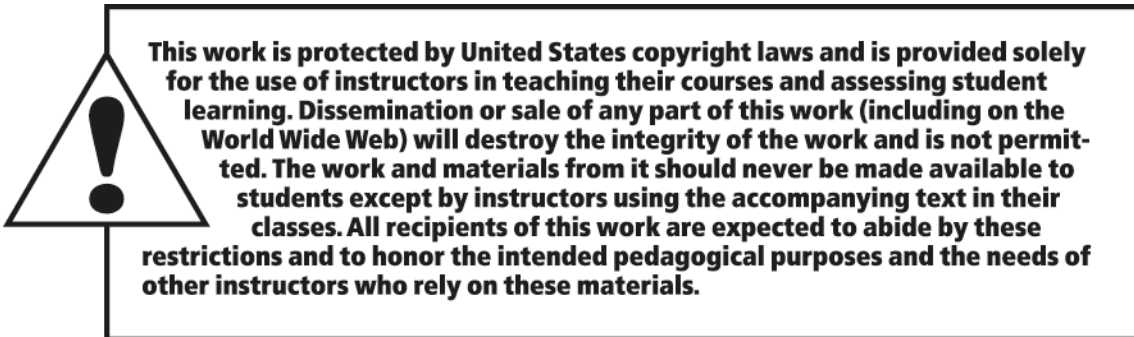
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INTRODUCTION

The Instructor's Resource Manual is designed to complement the *Math Lit*, 3rd edition instructor support package. The Annotated Instructor's Edition and Instructor Guide provide assistance to instructors for each cycle as a whole, as well as each section. This manual provides additional assessment items to support instructors at the course level. The following are included:

- Quizzes (Forms A and B) for each half of each cycle
- Half Cycle Exams
- Exams (Forms A and B) for each cycle
- Final Exam
- Answers to quizzes and exams

Math Lit, 3rd Edition uses a balanced approach to assessment, placing equal emphasis on skills, concepts and applications. Two quiz forms are provided for the first and second halves of each cycle. Form A is similar to the recaps provided in the text. It includes three to four unrelated problems that assess skills, concepts, and applications from that part of the work text. Form B takes one scenario and asks several questions about it. Often, the questions are more involved and difficult. This form is suitable for an individual quiz but also can be used for a group quiz. These quizzes can be used alone or in tandem with exercises and quizzes provided in MyLab Math.

Half cycle exams are provided for the first and second halves of each cycle.

Two exam forms are provided for each cycle. Forms A and B are similar in approach and emphasis. Approximately half of each exam addresses skills while the remaining half addresses concepts and applications.

Answers for all quizzes and exams are included at the end of this manual.

Additional course-level instructor support items include the Instructor's Solutions Manual and TestGen[®] testbank, available electronically.

Name _____

Math Lit Cycle 0, Quiz, Form A

1. Given the number 0.999456
 - a. Express this number in words.
 - b. Round this number to the nearest hundredth.
 - c. Round this number to the nearest ten-thousandth.
2. You go to the grocery store and buy a bag of chips for \$1.99, a frozen pizza for \$4.95, and a 2-liter of soda for \$1.85. If you have a coupon for \$3 off your purchase, how much do you owe before tax?
3. Compute the following fraction operations.
 - a. $\left(\frac{7}{3}\right)\left(-\frac{3}{5}\right) =$
 - b. $\frac{4}{5} - \left(-\frac{5}{6}\right) =$
4. There are 42 students in Ms. Gordon's geometry class. If 27 students get a passing grade on the midterm, what percentage of the class passed the midterm?

Name _____

Math Lit Cycle 0, Quiz, Form B

1. Paulina weighed 176 pounds two months ago. She now weighs 161 pounds. What was Paulina's percentage of weight lost?

2. Compute the following *without a calculator*.
 - a. Write the following fraction as a decimal (do not round): $\frac{4}{5}$

 - b. Write the following fraction as a percentage: $\frac{4}{5}$

 - c. Convert the following to an improper fraction: $7\frac{2}{5}$

3. Compute the following fraction operations.
 - a. $\left(-\frac{5}{3}\right) \div \left(-\frac{6}{5}\right) =$
 - b. $\frac{4}{5} + \frac{2}{3} =$

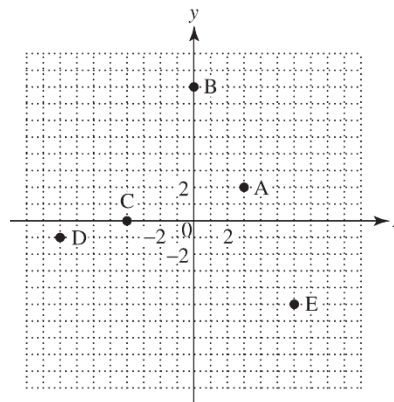
4. You need to buy an outfit for a night out. You buy a pair of jeans that cost \$68.99, a shirt that costs \$29.99, and a pair of shoes that cost \$52.55. How much will you pay before tax? If you pay a 10.25% sales tax, how much will you pay after tax?

Name _____

Math Lit Cycle 1, Quiz for First Half (Sections 1.1–1.7), Form A

1. For each point on the graph provided, state its ordered pair and the quadrant or axis.

Letter	Point	Axis/Quadrant
A		_____
B		_____
C		_____
D		_____
E		_____



2. The student to teacher ratio is 23:1 at a local school and there is a total of 600 students and teachers. How many teachers and how many students are there?
3. Show all your work on the following fraction operations. If the answer is larger than one, convert to a mixed number.

a. $\frac{7}{9} + \frac{5}{12} =$

b. $\left(-\frac{3}{10}\right) \cdot \left(-\frac{5}{6}\right) =$

4. Throughout the course of a day, stocks dropped from 57.63 points to 39.17 points. How far did the value of the stock drop by the end of the day?
- a. Choose the calculation that describes the scenario.
- | | |
|-----------------------|---------------------|
| A. $57.63 - 39.17$ | B. $39.17 - 57.63$ |
| C. $57.63 - (-39.17)$ | D. $-39.17 - 57.63$ |
- b. Compute the answer.

Name _____

Math Lit Cycle 1, Quiz for First Half (Sections 1.1–1.7), Form B

1. Find the mean of these numbers: $-15, -9, -5, -1, 3, 7$

2. According to data from the Perinatal Institute, about 1 in 20 babies in the world are born on their due date each year.
 - a. What percent of babies in the world are born on their due date? Round to the nearest whole number.

 - b. If 140 million babies were born in the world last year, how many should have been born on their due date? Round to the nearest whole number.

3. Compute the following fraction operations.
 - a. $\frac{7}{3} - \left(-\frac{3}{5}\right) =$
 - b. $\left(\frac{7}{3}\right) \div \left(-\frac{3}{5}\right) =$

4. Of the 1,100 people who responded to a poll about tea, 395 claimed they liked green tea. What is the relative frequency of people who drink green tea?

Name _____

Math Lit Cycle 1, Quiz for Second Half (Sections 1.8–1.14), Form A

1. If a doctor bills \$550/hour, how much do they make every second? How much do they make per year? Assume they work 45 hours per week, 46 weeks per year.
2. Paulina weighs 165 pounds. Her goal for the new year is to lose 10% of her body weight
 - a. How many pounds does she want to lose?
 - b. By October, she has achieved her goal, but starts to return to her old eating habits. By the following January, she has gained 10% of the weight she was in October. How much does she weigh now?
 - c. Over the course of the year, from the previous new year to the current one, what was her overall weight change as a percent? Overall, did she gain or lose for the year?
3. Determine the pattern used to form the Outputs from the Inputs in the following table. Write an expression for the n th term.

Input	Output
-3	46
1	34
9	10
13	-2

4. Use this expression to answer the following questions: $5xy - 4y + 17$
 - a. Is this an expression or an equation?
 - b. How many terms are there?
 - c. List the variable(s).
 - d. List the constant(s).

Name _____

Math Lit Cycle 1, Quiz for Second Half (Sections 1.8–1.14), Form B

On average, a new car will lose 20% of its value each year. This loss of value is known as depreciation.

1. How much will the car be worth in 12 years? Consider using the table provided.

	A	B
1	Age (years)	Value (\$)
2	0	27,000
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

After 12 years, the car will be worth _____% of the value paid at the dealership when it was new. Complete the blank, rounding the value to the nearest whole percent.

2. If you want to use Excel to fill in the table above, what formula would you use to generate the next year that would be listed in cell A3? What formula would you use to generate the next dollar value that would be listed in cell B3? Note: You would use the “fill down” command after entering these formulas to complete the table.

A3 =

B3 =

4. Write an expression to represent the change in value of the car in terms of time in years, t .

Name _____

Math Lit Cycle 2, Quiz for First Half (Sections 2.1–2.9), Form A1. Evaluate $\frac{5x - y^2}{z}$ when:

a. $x = -2, y = -4, z = -1$

b. $x = 5, y = 5, z = -1$

c. $x = -2, y = -4, z = 0$

2. Simplify each expression.

a. $(17x)^0(-3x^3)^3$

b. $(-2x^0)(-3x^3)^2$

c. $(-8)^{\frac{1}{3}}$

3. The following data set represents the number of cars sold each week for a 6-week period for a specific dealership. Find the mean, median, and mode for the data set. Round all results to two decimal places.

12 9 16 11 9 23

Mean:**Median:****Mode**

4. Simplify.

a. $(x - 5)(2x^2 + 3x - 6)$

b. $-3(x^2 - 8x + 7) - (2x - 4)$

Name _____

Math Lit Cycle 2, Quiz for First Half (Sections 2.1–2.9), Form B

1. A box of cereal is 13 in. tall, 6 in. wide, and 2 in. deep. If the box is $\frac{2}{3}$ full, how much cereal is in the box?
2. Find the mean of these values assuming the first 4 values each have a weight of 20% and the last 2 each have a weight of 10%: 5, 11, 12, 17, 25, 33
3. You thought a sweater costs \$65, but your prediction was \$15 less than $\frac{4}{5}$ the actual cost of the sweater. Give an algebraic expression for this statement and solve it.
4. Rewrite each expression, using the stated property.
 - a. $(a + 2b) - 3c$; associative property of addition.
 - b. $3(a - b)$; commutative property of multiplication.
5. Simplify.
 - a. $2 - 7(x - 6)$
 - b. $(2 - 7)(x - 6)$
 - c. $(2 - 7)x - 6$
 - d. $2 - 7x - 6$

Name _____

Math Lit Cycle 2, Quiz for Second Half (Sections 2.10–2.17), Form A

1. Solve each equation. Round results to two decimal places.
 - a. $1.03(2x - 4) = 13.99$
 - b. $-17x + 15 = -3(x + 5) - 14x$

2. You're building a right triangular skate ramp in your backyard. You know it has a vertical height of 9 feet and a horizontal length of 12 feet. What is the length of the ramp?

3. A bag contains 3 green marbles, 7 black marbles, and 6 red marbles. One marble is randomly drawn from the bag. Find the following probabilities.
 - a. Drawing a green marble.

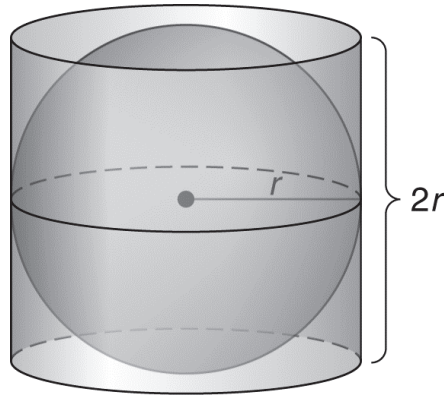
 - b. NOT drawing a black marble.

4. Solve $\frac{7x-1}{3} = \frac{-x+1}{2}$

Name _____

Math Lit Cycle 2, Quiz for Second Half (Sections 2.10–2.17), Form B

Archimedes discovered that the volume of a sphere is two-thirds the volume of the smallest cylinder that surrounds the sphere.



The volume of any cylinder is given by the formula:

$$V = \pi(\text{radius of cylinder})^2(\text{height of cylinder})$$

1. Find the volume of a sphere using the relationship between a sphere and cylinder that Archimedes found and the formula for the volume of a cylinder.

Archimedes also discovered that the surface area of a sphere is two-thirds the surface area of the smallest cylinder that surrounds the sphere.

The surface area of any cylinder is given by the formula:

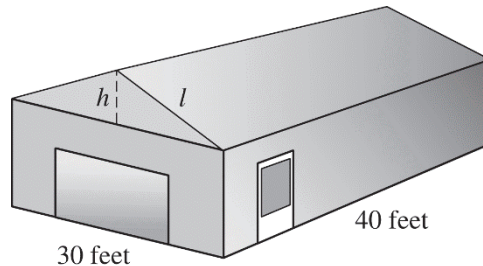
$$SA = 2\pi(\text{radius of the cylinder})^2 + 2\pi(\text{radius of the cylinder})(\text{height of the cylinder})$$

2. Find the surface area of a sphere using the relationship between a sphere and cylinder that Archimedes found and the formula for the surface area of a cylinder.

Name _____

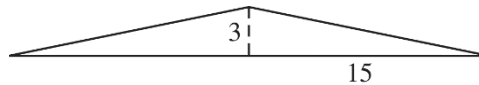
Math Lit Cycle 3, Quiz for First Half (Sections 3.1–3.8), Form A

Jamie is working with his father to replace the worn shingles on their detached garage. While there will be several materials to buy, the shingles will be the most expensive material to purchase. Complete the following problems to find the cost of the shingles. Begin by finding the dimensions of one side of the roof. Then find the total area of the roof, the amount of shingles necessary, and their total cost.



1. The roof has a 3:15 slope, meaning there are 3 units of rise for every 15 units of run.

Slope relationship in roof:



Use the slope relationship and the dimensions of the garage to find the height, h , of the triangular end of the garage.

2. Find the length, l , of the slant of the roof.
3. Find the area of one side of the roof.
4. Find the total area of the roof.

ESSAY. Write your answer in the space provided or on a separate sheet of paper.

1) (No exercises available)

Answer:

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

List all numbers from the set that are natural numbers.

2) $\{-8, -\frac{1}{8}, 0, 0.14, \sqrt{15}, 9.8, \sqrt{64}\}$

A) $\{-8, -\frac{1}{8}, 0, 0.14, 9.8, \sqrt{64}\}$

B) $\{\sqrt{64}\}$

C) $\{-8, \sqrt{64}\}$

D) $\{0, \sqrt{64}\}$

Answer: B

List all numbers from the set that are whole numbers.

3) $\{-6, -\frac{1}{6}, 0, 0.14, \sqrt{15}, 9.8, \sqrt{36}\}$

A) $\{\sqrt{36}\}$

B) $\{-6, -\frac{1}{6}, 0, 0.14, 9.8, \sqrt{36}\}$

C) $\{-6, \sqrt{36}\}$

D) $\{0, \sqrt{36}\}$

Answer: D

Choose which of the following descriptions apply to the number (more than one may apply): whole, integer, rational, irrational, real.

4) 81

A) Real, rational, integer, whole

B) Real, rational, whole

C) Real

D) Real, rational, integer

Answer: A

5) -25

A) Real, irrational

B) Real, rational

C) Real, rational, integer, whole

D) Real, rational, integer

Answer: D

6) $\sqrt{3}$

A) Real, irrational

B) Real

C) Real, irrational, integer

D) Real, rational

Answer: A

7) 0

A) Real, rational, integer

B) Real, rational

C) Real, whole

D) Real, rational, integer, whole

Answer: D

8) 9.98

- A) Whole, rational, real
- C) Rational

- B) Rational, real
- D) Real, irrational

Answer: B

9) 0.8181...

- A) Whole, rational, real
- C) Real

- B) Irrational, real
- D) Rational, real

Answer: D

10) $\frac{1}{6}$

- A) Real, whole
- C) Real, rational

- B) Real, rational, integer
- D) Real, irrational

Answer: C

11) $-\sqrt{20}$

- A) Real, integer
- B) Real, rational

- C) Real, whole
- D) Real, irrational

Answer: D

12) 0.89140..... [nonrepeating, nonterminating]

- A) Real, rational
- C) Real, irrational

- B) Real, irrational, integer
- D) Real

Answer: C

13) $-\frac{1}{2}$

- A) Real, rational, integer
- C) Real, whole

- B) Real, rational
- D) Real, irrational

Answer: B

Tell whether the statement is true or false.

14) Every rational number is an integer.

- A) True

- B) False

Answer: B

15) Every irrational number is an integer.

- A) True

- B) False

Answer: B

16) Every whole number is a real number.

- A) True

- B) False

Answer: A

17) Some rational numbers are irrational.

- A) True

- B) False

Answer: B

18) Some rational numbers are integers.

A) True

B) False

Answer: A

19) Every integer is an irrational number.

A) True

B) False

Answer: B

20) Some real numbers are integers.

A) True

B) False

Answer: A

Round as indicated.

21) 405 to the nearest ten

A) 420

B) 400

C) 510

D) 410

Answer: D

22) 559 to the nearest ten

A) 550

B) 660

C) 560

D) 570

Answer: C

23) 6,867 to the nearest ten

A) 6,970

B) 6,860

C) 6,870

D) 6,880

Answer: C

24) 514 to the nearest hundred

A) 500

B) 400

C) 510

D) 600

Answer: A

25) 698 to the nearest hundred

A) 600

B) 690

C) 700

D) 800

Answer: C

26) 5,231 to the nearest hundred

A) 5,210

B) 5,300

C) 5,200

D) 5,100

Answer: C

27) 8,371 to the nearest hundred

A) 8,390

B) 8,300

C) 8,500

D) 8,400

Answer: D

28) 80,925 to the nearest hundred

A) 80,800

B) 81,000

C) 80,910

D) 80,900

Answer: D

29) 69 to the nearest ten

A) 50

B) 70

C) 60

D) 80

Answer: B

30) 71 to the nearest ten

A) 60

B) 70

C) 80

D) 50

Answer: B

Estimate the sum by rounding each number to the nearest ten.

31)

$$\begin{array}{r} 23 \\ 25 \\ 61 \\ 74 \\ + 43 \\ \hline \end{array}$$

A) 220

B) 230

C) 200

D) 226

Answer: A

32)

$$\begin{array}{r} 64 \\ + 62 \\ \hline \end{array}$$

A) 130

B) 120

C) 126

D) 100

Answer: B

Estimate the sum by rounding each number to the nearest hundred.

33)

$$\begin{array}{r} 631 \\ 845 \\ 642 \\ 416 \\ + 975 \\ \hline \end{array}$$

A) 3,500

B) 3,510

C) 3,400

D) 3,509

Answer: C

34)

$$\begin{array}{r} 6,162 \\ + 1,257 \\ \hline \end{array}$$

A) 7,000

B) 7,500

C) 7,419

D) 7,400

Answer: B

35)

$$\begin{array}{r} 785 \\ 234 \\ 721 \\ 333 \\ + 510 \\ \hline \end{array}$$

A) 2,583

B) 2,600

C) 2,580

D) 2,500

Answer: D

Write the whole number in words.

36) 135,060

- A) One hundred thirty-five thousand, sixty
- C) Thirteen thousand, five hundred sixty

- B) One million, thirty-five thousand, sixty
- D) Thirteen thousand, five hundred six

Answer: A

37) 9,300,695

- A) Ninety-three thousand, six hundred ninety-five
- B) Nine million, thirty thousand, six hundred ninety-five
- C) Nine million, three hundred thousand, six hundred ninety-five
- D) Nine million, three thousand, six hundred ninety-five

Answer: C

38) 22,000,674

- A) Twenty-two million, six thousand seventy-four
- B) Two million, two thousand, six hundred seventy-four
- C) Twenty-two million, six hundred seventy-four
- D) Twenty-two hundred million, six hundred seventy-four

Answer: C

39) 64,568,009

- A) Sixty-four million, five hundred thousand, sixty-eight hundred, nine
- C) Sixty million, forty-five thousand, sixty-eight hundred and nine

- B) Sixty-million, five thousand sixty-eight hundred, nine
- D) Sixty-four million, five hundred sixty-eight thousand, nine

Answer: D

40) 235,060

- A) Two million, thirty-five thousand, sixty
- C) Two hundred thirty-five thousand, sixty

- B) Twenty-three thousand, five hundred six
- D) Twenty-three thousand, five hundred sixty

Answer: C

41) 4,200,091

- A) Four million, twenty thousand, ninety-one
- C) Four million, two hundred ninety-one

- B) Four million, two hundred thousand, ninety-one
- D) Forty-two thousand, ninety-one

Answer: B

42) 3072

- A) Thirty thousand, seventy-two
- C) Three million, seventy-two

- B) Three hundred thousand, seventy-two
- D) Three thousand, seventy-two

Answer: D

43) 70,146

- A) Seven thousand, one hundred forty-six
- C) Seven hundred one thousand, forty-six

- B) Seventy thousand, one hundred forty-six
- D) Seven million, one thousand, forty-six

Answer: B

44) Jennilee has 30,000 frequent flier miles.

- A) Three hundred thousand
- C) Thirty thousand

- B) Thirty million
- D) Three thousand

Answer: C

45) Paul has the number 24,730,208 showing on his calculator display.

- A) Twenty-four million, seventy-three thousand, two hundred eight
- B) Twenty-four million, seven hundred thirty thousand, two hundred eighty
- C) Twenty-four million, seven hundred three thousand, two hundred eight
- D) Twenty-four million, seven hundred thirty thousand, two hundred eight

Answer: D

Write a signed number for the statement.

46) 130 feet above sea level

- A) -130

- B) 130

Answer: B

47) 16° below zero

- A) 16

- B) -16

Answer: B

48) \$299 profit

- A) -299

- B) 299

Answer: B

49) \$2,751 in debt

- A) -2,751

- B) 2,751

Answer: A

50) The team scored 10 points.

- A) -10

- B) 10

Answer: B

Interpret what the negative number means in the real-life situation.

51) -29 yards during a football play

- A) Loss of 29 yards

- B) Gain of 29 yards

Answer: A

52) Performance of a certain stock yesterday: -4.75 points

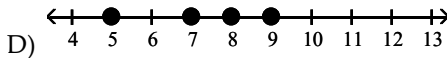
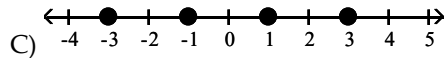
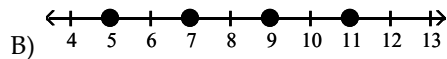
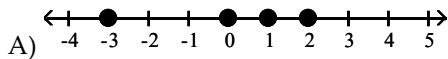
- A) Gain of 4.75 points yesterday

- B) Loss of 4.75 points yesterday

Answer: B

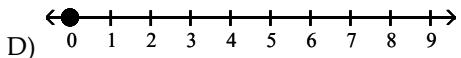
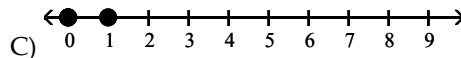
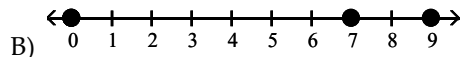
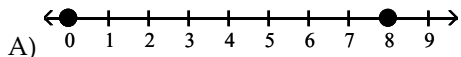
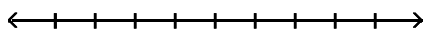
Graph the numbers on a number line.

53) $-3, -1, 1, 3$



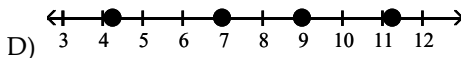
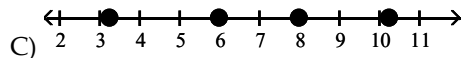
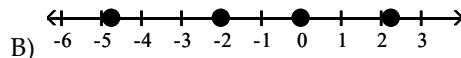
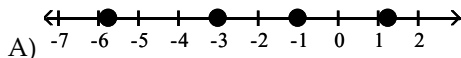
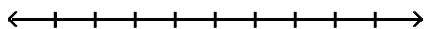
Answer: C

54) $-\frac{14}{3}, -2, 0, \frac{8}{3}$



Answer: D

55) $-\frac{23}{4}, -3, -1, \frac{5}{4}$



Answer: A

Fill in the blank with $<$ or $>$.

56) -5 -8
A) $<$

B) $>$

Answer: B

57) -3 -6
A) $>$

B) $<$

Answer: A

58) -9 1
A) $>$

B) $<$

Answer: B

59) $-7 \frac{\quad}{\quad} 2$

A) $>$

B) $<$

Answer: B

60) $4.2 \frac{\quad}{\quad} 4.5$

A) $<$

B) $>$

Answer: A

61) $-7.5 \frac{\quad}{\quad} -7.2$

A) $<$

B) $>$

Answer: A

62) $-3.4 \frac{\quad}{\quad} -3.5$

A) $>$

B) $<$

Answer: A

63) $-\frac{17}{2} \frac{\quad}{\quad} -\frac{19}{2}$

A) $>$

B) $<$

Answer: A

Solve the problem.

- 64) Your friends Joe and Tanya are having a debate. Joe says that -21 is bigger than -18 and uses money as an analogy: "If I owe \$21, I have a larger debt than if I owe \$18." Tanya responds and argues that -18 is larger than -21 because the bigger the debt, the less money the person has. They ask you to settle their debate. Which number is larger, -21 or -18 ?

A) -18

B) -21

Answer: A

Find (a) the opposite and (b) the absolute value of the number.

65) -2.12

A) (a) 2.12

B) (a) -2.12

C) (a) 2.12

D) (a) -2.12

(b) 2.12

(b) 2.12

(b) -2.12

(b) -2.12

Answer: A

66) 11.7

A) (a) 11.7

B) (a) 11.7

C) (a) -11.7

D) (a) -11.7

(b) -11.7

(b) 11.7

(b) -11.7

(b) 11.7

Answer: D

67) $\frac{5}{12}$

A) (a) $\frac{5}{12}$

B) (a) $-\frac{5}{12}$

C) (a) $-\frac{5}{12}$

D) (a) $\frac{5}{12}$

(b) $\frac{5}{12}$

(b) $\frac{5}{12}$

(b) $-\frac{5}{12}$

(b) $-\frac{5}{12}$

Answer: B

68) $-\frac{12}{5}$

A) (a) $\frac{12}{5}$

(b) $\frac{12}{5}$

B) (a) $\frac{12}{5}$

(b) $-\frac{12}{5}$

C) (a) $-\frac{12}{5}$

(b) $-\frac{12}{5}$

D) (a) $-\frac{12}{5}$

(b) $\frac{12}{5}$

Answer: A

Find the opposite of the number.

69) 23

A) 0

B) -23

C) 23

D) $\frac{1}{23}$

Answer: B

70) -18

A) 0

B) 18

C) -18

D) $-\frac{1}{18}$

Answer: B

71) $\frac{6}{5}$

A) $-\frac{6}{5}$

B) $\frac{5}{6}$

C) $-\frac{5}{6}$

D) $\frac{6}{5}$

Answer: A

72) $-\frac{3}{7}$

A) $-\frac{3}{7}$

B) $\frac{3}{7}$

C) $\frac{7}{3}$

D) $-\frac{7}{3}$

Answer: B

73) 8.7

A) -8.7

B) $\frac{1}{8.7}$

C) 8.7

D) $-\frac{1}{8.7}$

Answer: A

74) -6.7

A) $-\frac{1}{6.7}$

B) $\frac{1}{6.7}$

C) 6.7

D) -6.7

Answer: C

Find the absolute value.

75) $|19|$

A) 38

B) 19

C) 0

D) -19

Answer: B

76) $|-2|$

A) 0

B) 4

C) 2

D) -2

Answer: C

77) $|-5.2|$

A) 5.2

B) 0

C) 10.4

D) -5.2

Answer: A

78) $|-0.018|$

A) 0.018

B) 0.036

C) 0

D) -0.018

Answer: A

79) $\left| -\frac{23}{24} \right|$

A) $-\frac{23}{24}$

B) $\frac{23}{24}$

C) $\frac{23}{12}$

D) 0

Answer: B

80) $\left| \frac{4}{5} \right|$

A) $-\frac{4}{5}$

B) $\frac{8}{5}$

C) 0

D) $\frac{4}{5}$

Answer: D

Simplify.

81) $-|-20|$

A) 20

B) 0

C) 40

D) -20

Answer: D

82) $-|21|$

A) -21

B) -42

C) 0

D) 21

Answer: A

Add.

83) $3 + (-6)$

A) -9

B) -3

C) 3

D) 9

Answer: B

84) $-10 + 15$

A) -5

B) -25

C) 25

D) 5

Answer: D

85) $-16 + (-3)$

A) -13

B) -19

C) 13

D) 19

Answer: B

86) $-283 + 771$

A) 1,054

B) -488

C) -1,054

D) 488

Answer: D

87) $-41 + (-41)$

A) -41

B) 82

C) 0

D) -82

Answer: D

Subtract.

88) $-4 - 15$

A) -11

B) 19

C) 11

D) -19

Answer: D

89) $-5 - (-4)$

A) 1

B) -9

C) -1

D) 9

Answer: C

90) $8 - (-5)$

A) -13

B) -3

C) 3

D) 13

Answer: D

91) $9 - 14$

A) -23

B) 5

C) 23

D) -5

Answer: D

92) $-13 - (-9)$

A) 4

B) -22

C) -4

D) 22

Answer: C

93) $-6 - (-6)$

A) 6

B) 12

C) -6

D) 0

Answer: D

94) $10 - (-10)$

A) -20

B) 0

C) -10

D) 20

Answer: D

Multiply.

95) $-7(17)$

A) -49

B) 14

C) -119

D) 70

Answer: C

96) $-8(-8)$

A) 64

B) -74

C) -64

D) 74

Answer: A

97) $-7(12)$

A) -84

B) 79

C) -74

D) 184

Answer: A

98) $-33(0)$

A) -33

B) 0

C) 33

D) 1

Answer: B

99) $-10(-8)(-10)$

A) 90

B) -28

C) 800

D) -800

Answer: D

100) $(-2)(3)(-2)(-3)$

A) 36

B) -36

C) 12

D) -4

Answer: B

101) $(-6)(-9)(0)(5)$

A) -270

B) 0

C) -45

D) 270

Answer: B

Divide.

102) $\frac{-60}{5}$

A) -22

B) -12

C) $-\frac{1}{12}$

D) 12

Answer: B

103) $\frac{0}{-50}$

A) 50

B) Undefined

C) 0

D) 1

Answer: C

104) $\frac{-7}{0}$

A) -7

B) Undefined

C) 7

D) 0

Answer: B

105) $\frac{-36}{9}$

A) 4

B) -5

C) -4

D) -3

Answer: C

106) $\frac{35}{-5}$

A) -7

B) -6

C) -8

D) 7

Answer: A

107) $\frac{-40}{-5}$

A) -8

B) 8

C) -9

D) -7

Answer: B

108) $-56 \div 7$

A) -7

B) -8

C) 8

D) -9

Answer: B

109) $-189 \div (-7)$

A) 17

B) 27

C) $\frac{1}{27}$

D) -27

Answer: B

Solve the problem.

- 110) A football team lost 8 yards on each of two consecutive plays. Represent the total loss as product of signed numbers and find the total loss.

A) $8 - 2 = 6$; a loss of 6 yd

B) $2 \cdot (-8) = -18$; a loss of 18 yd

C) $2 + (-8) = -6$; a loss of 6 yd

D) $2 \cdot (-8) = -16$; a loss of 16 yd

Answer: D

- 111) At the local recycling center, employees are paid every two weeks. If Jeremy was paid \$10,920 last year, how much did he make each pay period?

A) \$210

B) \$630

C) \$420

D) \$840

Answer: C

- 112) In 14 weeks, the value of Bob Treatman's day trading account decreased by \$406. What was the average weekly change in the value of the account?

A) -\$31 per week

B) -\$35 per week

C) -\$29 per week

D) \$27 per week

Answer: C

- 113) The price of a stock rose 3 points, fell 14 points, and again fell 12 points. What was the stock's total change?

A) -29 points

B) 1 points

C) 29 points

D) -23 points

Answer: D

- 114) Sean has \$107 in his savings account. After he withdraws \$74, what will his balance be?

A) -\$33

B) \$33

C) -\$181

D) \$181

Answer: B

- 115) In a game of cards, Lindsey won 3 chips, lost 15 chips, won 12 chips, and lost 10 chips. What was her final count of chips?

A) -10 chips

B) 10 chips

C) -34 chips

D) 40 chips

Answer: A

- 116) The Neighborhood Lemonade Stand, Inc. reported net incomes of -\$437, -\$171, and -\$197 for the past three years. What was its total net income for these three years?

A) \$805

B) -\$368

C) -\$805

D) -\$608

Answer: C

- 117) At the start of a chemistry experiment, Sarah measured the temperature of a liquid to be -8°C . At the end of the experiment, it had risen 37°C . What was the liquid's temperature at the end of the experiment?

A) -29°C

B) -45°C

C) 45°C

D) 29°C

Answer: D

- 118) In four rounds of a card game, you get scores of -1, -2, 8, and 10. What is your final score?

A) -19

B) 19

C) 15

D) -15

Answer: C

119) A bike road race starts at an elevation of 970 feet and passes through 5 stages where the elevation changes by 444 feet, -557 feet, 139 feet, 599 feet, and 369 feet. At what elevation does the race end?

A) 2,051 ft

B) -3,078 ft

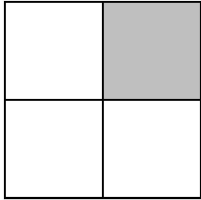
C) 3,078 ft

D) 1,964 ft

Answer: D

Write a fraction to represent the shaded part of the object.

120)



A) $\frac{3}{4}$

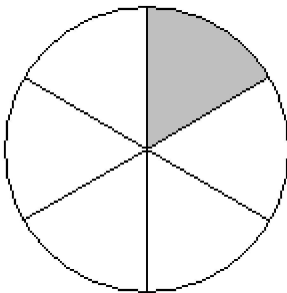
B) $\frac{3}{1}$

C) $\frac{1}{3}$

D) $\frac{1}{4}$

Answer: D

121)



A) $\frac{1}{6}$

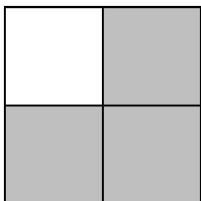
B) $\frac{5}{6}$

C) $\frac{5}{1}$

D) $\frac{1}{5}$

Answer: A

122)



A) $\frac{1}{3}$

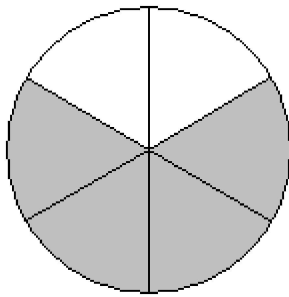
B) $\frac{3}{4}$

C) $\frac{3}{1}$

D) $\frac{1}{4}$

Answer: B

123)



A) $\frac{5}{6}$

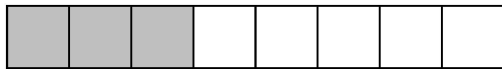
B) $\frac{5}{1}$

C) $\frac{1}{6}$

D) $\frac{1}{5}$

Answer: A

124)



A) $\frac{3}{5}$

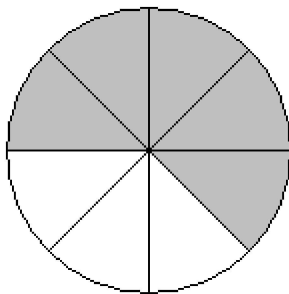
B) $\frac{5}{8}$

C) $\frac{3}{8}$

D) $\frac{5}{3}$

Answer: C

125)



A) $\frac{5}{8}$

B) $\frac{5}{3}$

C) $\frac{3}{8}$

D) $\frac{3}{5}$

Answer: A

126)



A) $\frac{3}{5}$

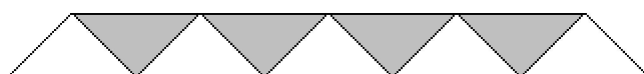
B) $\frac{5}{8}$

C) $\frac{3}{8}$

D) $\frac{5}{3}$

Answer: B

127)



A) $\frac{4}{9}$

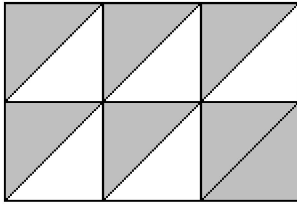
B) $\frac{4}{5}$

C) $\frac{5}{4}$

D) $\frac{5}{9}$

Answer: A

128)



A) $\frac{5}{12}$

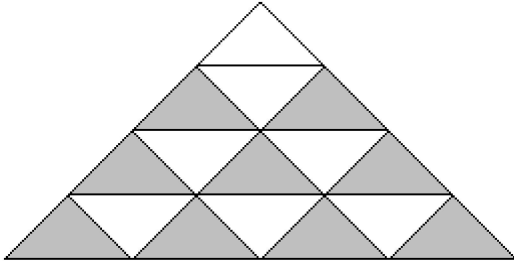
B) $\frac{7}{5}$

C) $\frac{7}{12}$

D) $\frac{5}{7}$

Answer: C

129)



A) $\frac{7}{9}$

B) $\frac{9}{16}$

C) $\frac{7}{16}$

D) $\frac{9}{7}$

Answer: B

Draw a sketch to illustrate the fractional part.

130) $\frac{4}{7}$ of an object

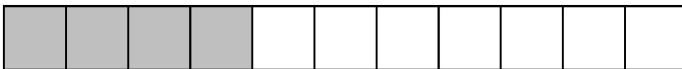
A)



B)



C)



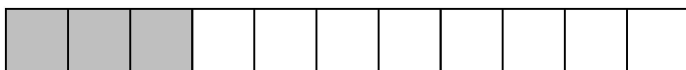
D)



Answer: D

131) $\frac{3}{8}$ of an object

A)



B)



C)



D)



Answer: B

132) $\frac{5}{8}$ of an object

A)



C)



Answer: C

B)



D)



133) $\frac{4}{9}$ of an object

A)



C)



Answer: C

B)



D)



134) $\frac{7}{9}$ of an object

A)



B)



C)



D)



Answer: B

135) $\frac{7}{10}$ of an object

A)



B)



C)



D)



Answer: D

136) $\frac{3}{10}$ of an object

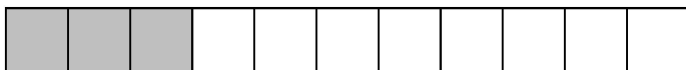
A)



B)



C)



D)



Answer: A

137) $\frac{4}{11}$ of an object

A)



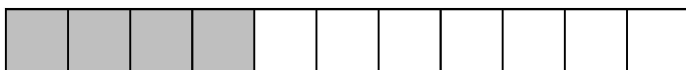
B)



C)



D)



Answer: D

138) $\frac{6}{11}$ of an object

A)



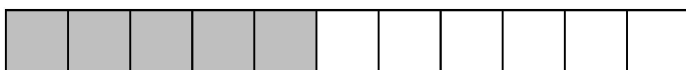
B)



C)



D)



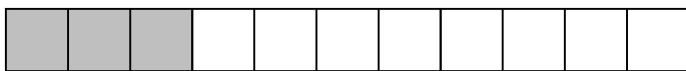
Answer: C

139) $\frac{8}{11}$ of an object

A)



B)



C)



D)



Answer: A

Write the fraction in simplest form.

140) $\frac{2}{8}$

A) $\frac{2}{4}$

B) $\frac{1}{8}$

C) $\frac{4}{1}$

D) $\frac{1}{4}$

Answer: D

141) $\frac{16}{20}$

A) $\frac{4}{20}$

B) $\frac{5}{6}$

C) $\frac{8}{10}$

D) $\frac{4}{5}$

Answer: D

142) $\frac{35}{45}$

A) $\frac{35}{45}$

B) $\frac{5}{9}$

C) $\frac{7}{5}$

D) $\frac{7}{9}$

Answer: D

143) $\frac{91}{117}$

A) $\frac{13}{9}$

B) $\frac{91}{117}$

C) $\frac{7}{13}$

D) $\frac{7}{9}$

Answer: D

144) $\frac{107}{147}$

A) $\frac{107}{147}$

B) $\frac{53}{107}$

C) $\frac{147}{53}$

D) $\frac{53}{73}$

Answer: A

145) $\frac{464}{1,102}$

A) $\frac{1,102}{464}$

B) $\frac{464}{1,102}$

C) $\frac{19}{8}$

D) $\frac{8}{19}$

Answer: D

Rewrite each fraction in simplest form. Then determine whether the pair of fractions is equivalent or not equivalent.

146) $\frac{1}{8}$ and $\frac{5}{40}$

A) Equivalent

B) Not equivalent

Answer: A

147) $\frac{1}{8}$ and $\frac{15}{136}$

A) Equivalent

B) Not equivalent

Answer: B

148) $\frac{7}{8}$ and $\frac{25}{26}$

A) Equivalent

B) Not equivalent

Answer: B

149) $\frac{3}{7}$ and $\frac{60}{140}$

A) Equivalent

B) Not equivalent

Answer: A

150) $\frac{50}{70}$ and $\frac{45}{63}$

A) Equivalent

B) Not equivalent

Answer: A

151) $\frac{16}{44}$ and $\frac{20}{66}$

A) Equivalent

B) Not Equivalent

Answer: B

Perform the indicated operation. Write the answer in simplest form.

152) $\frac{1}{6} \cdot \frac{3}{7}$

A) $\frac{3}{10}$

B) $\frac{4}{13}$

C) $\frac{1}{14}$

D) $\frac{3}{42}$

Answer: C

153) $\frac{4}{7} \cdot \frac{2}{3}$

A) $\frac{8}{21}$

B) $\frac{3}{5}$

C) $\frac{21}{8}$

D) $\frac{7}{6}$

Answer: A

154) $\frac{6}{7} \cdot \frac{1}{5}$

A) $\frac{7}{12}$

B) $\frac{6}{35}$

C) $\frac{35}{6}$

D) $\frac{7}{30}$

Answer: B

155) $\frac{4}{3} \div \frac{1}{9}$

A) 12

B) $\frac{4}{27}$

C) $\frac{27}{4}$

D) $\frac{1}{12}$

Answer: A

156) $\frac{4}{5} \div \frac{5}{7}$

A) $\frac{25}{28}$

B) $\frac{4}{7}$

C) $\frac{28}{25}$

D) $\frac{7}{4}$

Answer: C

157) $\frac{3}{7} \div \frac{9}{4}$

A) $\frac{4}{21}$

B) $\frac{28}{27}$

C) $\frac{27}{28}$

D) $\frac{21}{4}$

Answer: A

158) $\frac{3}{5} + \frac{2}{15}$

A) $\frac{56}{75}$

B) $\frac{1}{4}$

C) $\frac{11}{15}$

D) $\frac{1}{3}$

Answer: C

159) $\frac{1}{2} + \frac{1}{4}$

A) $\frac{3}{4}$

B) $\frac{1}{3}$

C) $\frac{7}{8}$

D) $\frac{1}{2}$

Answer: A

160) $\frac{3}{4} + \frac{5}{12}$

A) $\frac{1}{2}$

B) $\frac{7}{6}$

C) $\frac{2}{3}$

D) 2

Answer: B

161) $\frac{7}{9} - \frac{1}{3}$

A) $\frac{4}{9}$

B) $\frac{2}{3}$

C) $\frac{2}{9}$

D) $\frac{4}{3}$

Answer: A

162) $\frac{1}{5} - \frac{1}{12}$

A) $\frac{7}{60}$

B) $\frac{7}{5}$

C) $\frac{1}{5}$

D) $\frac{1}{60}$

Answer: A

163) $\frac{7}{18} - \frac{8}{25}$

A) $\frac{-1}{450}$

B) $\frac{31}{18}$

C) $\frac{-1}{18}$

D) $\frac{31}{450}$

Answer: D

Change the mixed number to an improper fraction.

164) $2\frac{5}{7}$

A) $\frac{14}{7}$

B) $\frac{14}{5}$

C) $\frac{19}{5}$

D) $\frac{19}{7}$

Answer: D

165) $6\frac{5}{8}$

A) $\frac{48}{8}$

B) $\frac{48}{5}$

C) $\frac{53}{5}$

D) $\frac{53}{8}$

Answer: D

166) $9\frac{2}{5}$

A) $\frac{45}{5}$

B) $\frac{47}{5}$

C) $\frac{47}{2}$

D) $\frac{45}{2}$

Answer: B

167) $7\frac{4}{7}$

A) $\frac{53}{7}$

B) $\frac{49}{4}$

C) $\frac{53}{4}$

D) $\frac{49}{7}$

Answer: A

168) $23\frac{7}{11}$

A) $\frac{161}{11}$

B) 322

C) 37

D) $\frac{260}{11}$

Answer: D

169) $337\frac{5}{6}$

A) 1685

B) 342

C) $\frac{2027}{6}$

D) $\frac{1685}{6}$

Answer: C

Write the improper fraction as a mixed or whole number.

170) $\frac{25}{3}$

A) $8\frac{1}{3}$

B) $\frac{1}{3}$

C) $9\frac{1}{3}$

D) $7\frac{1}{7}$

Answer: A

171) $\frac{16}{5}$

A) $4\frac{1}{5}$

B) $3\frac{1}{5}$

C) $3\frac{1}{7}$

D) $2\frac{1}{5}$

Answer: B

172) $\frac{29}{6}$

A) $4\frac{5}{6}$

B) $4\frac{5}{7}$

C) $3\frac{5}{6}$

D) $5\frac{5}{6}$

Answer: A

173) $\frac{210}{7}$

A) 211

B) $\frac{30}{2}$

C) 30

D) 209

Answer: C

174) $\frac{12}{7}$

A) $\frac{7}{12}$

B) $1\frac{5}{7}$

C) $12\frac{7}{12}$

D) $12\frac{12}{7}$

Answer: B

175) $\frac{282}{7}$

A) $40\frac{2}{7}$

B) $282\frac{7}{282}$

C) $\frac{7}{282}$

D) $282\frac{282}{7}$

Answer: A

176) $\frac{1347}{16}$

A) $1,347\frac{16}{1347}$

B) $1,347\frac{1347}{16}$

C) $84\frac{3}{16}$

D) $\frac{16}{1347}$

Answer: C

177) $\frac{2,366}{14}$

A) 169

B) $\frac{169}{2}$

C) 2,367

D) 2,365

Answer: A

Perform the indicated operation. Write the answer as a mixed number when possible.

178) $1\frac{1}{2} \cdot 5\frac{1}{3}$

A) $5\frac{7}{6}$

B) 8

C) 9

D) 11

Answer: B

179) $4\frac{2}{3} \cdot 1\frac{1}{6}$

A) $5\frac{3}{19}$

B) $16\frac{1}{3}$

C) $5\frac{4}{9}$

D) $2\frac{1}{3}$

Answer: C

180) $6\frac{3}{8} + 4\frac{7}{8}$

A) $10\frac{1}{4}$

B) $10\frac{10}{8}$

C) $11\frac{1}{4}$

D) $10\frac{3}{8}$

Answer: C

181) $8\frac{6}{7} + 6\frac{1}{7}$

A) 14

B) 15

C) $1\frac{6}{7}$

D) $15\frac{6}{7}$

Answer: B

182) $3\frac{5}{6} + 2\frac{3}{10}$

A) $5\frac{23}{60}$

B) $5\frac{2}{15}$

C) $5\frac{68}{60}$

D) $6\frac{2}{15}$

Answer: D

Add.

183) $\frac{3}{4} + \left(-\frac{9}{20}\right)$

A) $\frac{3}{8}$

B) $\frac{3}{2}$

C) $\frac{3}{40}$

D) $\frac{3}{10}$

Answer: D

184) $-\frac{9}{20} + \frac{3}{4}$

A) $\frac{3}{8}$

B) $\frac{3}{40}$

C) $\frac{3}{2}$

D) $\frac{3}{10}$

Answer: D

185) $11\frac{1}{7} + \left(-6\frac{6}{7}\right)$
 A) $4\frac{2}{7}$

B) $17\frac{2}{7}$

C) $16\frac{2}{7}$

D) $4\frac{1}{7}$

Answer: A

186) $-4\frac{3}{8} + 13\frac{1}{8}$
 A) $8\frac{3}{4}$

B) $8\frac{2}{4}$

C) $16\frac{3}{4}$

D) $17\frac{3}{4}$

Answer: A

187) $\frac{1}{8} + \frac{1}{6}$
 A) $\frac{1}{48}$

B) $\frac{7}{24}$

C) $\frac{1}{7}$

D) $\frac{1}{14}$

Answer: B

188) $-\frac{4}{6} + \left(-\frac{6}{7}\right)$
 A) $-1\frac{11}{21}$

B) $-1\frac{4}{7}$

C) $-\frac{10}{13}$

D) $-\frac{5}{21}$

Answer: A

189) $-1\frac{1}{4} + (-6)$
 A) $4\frac{3}{4}$

B) $-4\frac{3}{4}$

C) $7\frac{1}{4}$

D) $-7\frac{1}{4}$

Answer: D

190) $17\frac{2}{9} + 18\frac{1}{9}$
 A) $17\frac{1}{3}$

B) $35\frac{1}{3}$

C) $36\frac{1}{3}$

D) $34\frac{1}{3}$

Answer: B

191) $9\frac{2}{3} + 17\frac{1}{4}$
 A) $25\frac{11}{12}$

B) $27\frac{11}{12}$

C) $26\frac{11}{12}$

D) $9\frac{11}{12}$

Answer: C

Subtract.

192) $\frac{1}{8} - \left(-\frac{1}{4}\right)$
A) $\frac{1}{8}$

B) $-\frac{3}{8}$

C) $-\frac{1}{8}$

D) $\frac{3}{8}$

Answer: D

193) $-\frac{2}{3} - \frac{1}{2}$
A) $-\frac{1}{6}$

B) $\frac{7}{6}$

C) $-\frac{5}{6}$

D) $-\frac{7}{6}$

Answer: D

194) $-\frac{3}{4} - \left(-\frac{5}{8}\right)$
A) $-\frac{1}{8}$

B) -1

C) $\frac{1}{8}$

D) $-\frac{1}{4}$

Answer: A

195) $\frac{3}{8} - \frac{6}{7}$
A) $\frac{9}{56}$

B) $1\frac{13}{56}$

C) $1\frac{15}{56}$

D) $-\frac{27}{56}$

Answer: D

196) $38\frac{2}{3} - 25\frac{13}{16}$
A) 12

B) $11\frac{41}{48}$

C) $12\frac{41}{48}$

D) $13\frac{41}{48}$

Answer: C

197) $-4\frac{2}{5} - 7\frac{1}{7}$
A) $-11\frac{19}{35}$

B) $-9\frac{11}{35}$

C) $11\frac{19}{35}$

D) $-11\frac{9}{35}$

Answer: A

198) $-3\frac{1}{5} - \left(-6\frac{5}{7}\right)$
A) $\frac{9}{35}$

B) $3\frac{18}{35}$

C) $1\frac{2}{7}$

D) $-3\frac{18}{35}$

Answer: B

Multiply.

199) $-\frac{7}{8} \left(-\frac{12}{7} \right)$
A) $\frac{3}{2}$

B) -1

C) 3

D) $\frac{1}{3}$

Answer: A

200) $\left(-\frac{1}{6} \right) \left(\frac{6}{7} \right)$
A) $-\frac{36}{7}$

B) $-\frac{1}{7}$

C) $\frac{1}{84}$

D) $\frac{13}{8}$

Answer: B

201) $-\frac{6}{7} \cdot \frac{1}{7}$
A) $\frac{7}{14}$

B) $-\frac{6}{14}$

C) $-\frac{6}{49}$

D) $\frac{1}{49}$

Answer: C

202) $\frac{4}{15} \cdot \left(-\frac{4}{15} \right)$
A) -1

B) $-\frac{16}{15}$

C) $-\frac{16}{225}$

D) $-\frac{8}{30}$

Answer: C

203) $4 \cdot \left(-5\frac{11}{12} \right)$
A) $-22\frac{2}{3}$

B) -20

C) $-20\frac{11}{12}$

D) $-23\frac{2}{3}$

Answer: D

204) $-2\frac{1}{2} \cdot \left(-2\frac{2}{5} \right)$
A) -6

B) 6

C) 5

D) -8

Answer: B

205) $2\frac{1}{5} \cdot 3\frac{2}{3}$
A) $6\frac{11}{15}$

B) $6\frac{2}{15}$

C) $7\frac{7}{15}$

D) $8\frac{1}{15}$

Answer: D

206) $-4\frac{1}{4} \cdot 3\frac{1}{8}$
A) $-12\frac{1}{32}$

B) $-24\frac{1}{32}$

C) $-12\frac{17}{32}$

D) $-13\frac{9}{32}$

Answer: D

Divide.

207) $-\frac{8}{15} \div \left(-\frac{2}{3}\right)$
A) $-\frac{16}{45}$

B) $\frac{4}{5}$

C) $\frac{5}{4}$

D) $-\frac{4}{5}$

Answer: B

208) $-\frac{4}{9} \div \frac{4}{3}$

A) 3

B) $-\frac{16}{27}$

C) $\frac{1}{3}$

D) $-\frac{1}{3}$

Answer: D

209) $\frac{1}{2} \div \frac{6}{7}$

A) $\frac{12}{7}$

B) $\frac{3}{7}$

C) $\frac{7}{3}$

D) $\frac{7}{12}$

Answer: D

210) $\frac{5}{11} \div \left(-\frac{20}{77}\right)$
A) $-\frac{35}{4}$

B) $-\frac{7}{4}$

C) $-\frac{4}{7}$

D) $-\frac{100}{847}$

Answer: B

211) $2\frac{5}{7} \div 1\frac{1}{9}$

A) $2\frac{32}{70}$

B) $2\frac{31}{70}$

C) $3\frac{31}{70}$

D) $2\frac{31}{69}$

Answer: B

212) $-5\frac{2}{5} \div 3\frac{1}{6}$

A) $-2\frac{67}{95}$

B) $-1\frac{68}{95}$

C) $-1\frac{67}{94}$

D) $-1\frac{67}{95}$

Answer: D

213) $-3\frac{2}{3} \div \left(-3\frac{3}{8}\right)$
A) $2\frac{7}{81}$

B) $1\frac{8}{81}$

C) $1\frac{7}{81}$

D) $1\frac{7}{80}$

Answer: C

In the given number, name the place value for the digit 5.

214) 48.583

A) ones

B) hundredths

C) tenths

D) thousandths

Answer: C

- 215) 607.359
 A) thousandths B) thousands C) hundredths D) tenths
 Answer: C
- 216) 800.375
 A) tenths B) thousandths C) hundredths D) thousands
 Answer: B
- 217) 75.246
 A) thousands B) ones C) tenths D) hundredths
 Answer: B

Identify the digit with the given place value.

- 218) 379.865
 thousandths
 A) 0.005 B) 7 C) 5 D) 300
 Answer: C
- 219) 0.452633
 tenths
 A) 5 B) 4 C) 0 D) 0.3
 Answer: B
- 220) 215.779
 ones
 A) 0.7 B) 7 C) 5 D) 10
 Answer: C
- 221) 0.29658
 ten-thousandths
 A) 0.0005 B) 5 C) 0 D) 2
 Answer: B
- 222) 0.39645
 hundredths
 A) 9 B) 5 C) 0 D) 0.09
 Answer: A
- 223) 0.479215
 tenths
 A) 5 B) 4 C) 0.4 D) 0
 Answer: B
- 224) 546,372
 thousands
 A) 5 B) 0.006 C) 6000 D) 6
 Answer: D

225) 36,911.5

ones

A) 5

B) 0.1

C) 1

D) 10

Answer: C

226) 366.514

hundredths

A) 300

B) 5

C) 1

D) 0.01

Answer: C

Round the decimal to the given place value.

227) 6.079 (nearest hundredth)

A) 6.08

B) 6.07

C) 6.09

Answer: A

228) 3.92 (nearest tenth)

A) 3.9

B) 3.8

C) 4

Answer: A

229) 68.159,4 (nearest thousandth)

A) 68.169

B) 68.159

C) 68.149

Answer: B

230) 53.123,469 (nearest ten-thousandth)

A) 53.123,5

B) 53.123,469

C) 53.123,47

D) 53.123,6

Answer: A

231) 124.123,412 (nearest hundred-thousandth)

A) 124.123,4

B) 124.123,41

C) 124.123,40

D) 124.123,42

Answer: B

232) 124.000,537,5 (nearest millionth)

A) 124.000,5

B) 124.000,539

C) 124.000,54

D) 124.000,538

Answer: D

Round the money amount to the specified place.

233) \$.3421 to the nearest cent

A) \$.34

B) \$.3421

C) \$.35

D) \$.342

Answer: A

234) \$44.57 to the nearest dollar.

A) \$50

B) \$44

C) \$44.6

D) \$45

Answer: D

235) \$99.73 to the nearest dollar

A) \$100

B) \$99.80

C) \$0

D) \$90

Answer: A

236) \$0.9954 to the nearest cent

A) \$1.00

B) \$1.01

C) \$0.00

D) \$0.10

Answer: A

Add.

237) $-18.4 + (-17.3)$

A) 1.1

B) 35.7

C) -35.7

D) -1.1

Answer: C

238) $4.4 + 2.1$

A) -6.5

B) 6.5

C) 2.3

D) -2.3

Answer: B

239) $2.3 + (-7.8)$

A) -10.1

B) -5.5

C) 10.1

D) 5.5

Answer: B

240) $-6.6 + 3.9$

A) 10.5

B) 2.7

C) -2.7

D) -10.5

Answer: C

241) $-17.5 + 16.8 + (-14.4)$

A) 19.9

B) 48.7

C) 13.7

D) -15.1

Answer: D

Subtract.

242) $-10.7 - 11.2$

A) 21.9

B) -0.5

C) 0.5

D) -21.9

Answer: D

243) $-11.1 - (-4.9)$

A) -16

B) 6.2

C) -6.2

D) 16

Answer: C

244) $3.9 - 5.5$

A) 9.4

B) -9.4

C) -1.6

D) 1.6

Answer: C

245) $-7.3 - (-2.3)$

A) -5

B) 9.6

C) -9.6

D) 5

Answer: A

246) $73.69 - (-24.37)$

A) 49.32

B) 98.06

C) -98.06

D) -49.32

Answer: B

247) $18.13 - 28.65$

A) -46.78

B) -10.52

C) 10.52

D) 46.78

Answer: B

Multiply.

248) $(-0.5)(-0.6)$

A) 0.3

B) -1.1

C) -1

D) -0.1

Answer: A

249) $(3.3)(-5.10)$

A) -16.83

B) 8.5

C) 8.4

D) -1.8

Answer: A

250) $(-2.9)(-10.4)$

A) 30.16

B) -13.3

C) -7.5

D) 13.3

Answer: A

251) $(-3.82)(-5.4)$

A) -9.22

B) -1.58

C) 20.628

D) 9.22

Answer: C

252) $(12)(-2.88)$

A) -34.56

B) 14.98

C) 9.12

D) 14.88

Answer: A

Divide.

253) $1.55 \div (-5)$

A) -0.31

B) 3.1

C) -1.31

D) -3.1

Answer: A

254) $\frac{5.36}{-8}$

A) 6.7

B) -1.67

C) -6.7

D) -0.67

Answer: D

255) $0.030 \div (-0.5)$

A) -0.06

B) -0.05

C) -0.6

D) -0.006

Answer: A

256) $0.004,5 \div (-0.2)$

A) -0.225

B) -0.002,25

C) 0.225

D) -0.022,5

Answer: D

Write the decimal as a fraction or mixed number in simplest form.

257) 0.44

A) $\frac{11}{25}$ B) $\frac{1}{44}$ C) $\frac{1}{1,936}$ D) $\frac{11}{250}$

Answer: A

258) 0.638

A) $\frac{1}{407,044}$ B) $\frac{319}{50}$ C) $\frac{319}{500}$ D) $\frac{1}{638}$

Answer: C

259) 0.616

A) $\frac{77}{12}$

B) $\frac{1}{379,456}$

C) $\frac{77}{125}$

D) $\frac{1}{616}$

Answer: C

260) 0.5

A) $\frac{1}{2}$

B) $\frac{5}{100}$

C) $\frac{1}{10}$

D) $\frac{5}{10}$

Answer: A

261) 1.01

A) $\frac{1}{100}$

B) $1\frac{1}{100}$

C) $1\frac{1}{1,000}$

D) $\frac{1}{1,000}$

Answer: B

262) 6.6

A) $\frac{33}{50}$

B) $6\frac{3}{50}$

C) $6\frac{3}{5}$

D) $\frac{33}{5}$

Answer: C

263) 38.779

A) $38\frac{779}{1000}$

B) $\frac{38,779}{1000}$

C) $38\frac{39}{50}$

D) $\frac{38.779}{1000}$

Answer: A

264) 39.89

A) $39\frac{23}{25}$

B) $398\frac{9}{10}$

C) 3,989

D) $39\frac{89}{100}$

Answer: D

265) -12.238,4

A) $-1\frac{1399}{6250}$

B) $-12\frac{149}{625}$

C) $-1223\frac{21}{25}$

D) $-12\frac{239}{1000}$

Answer: B

Write the fraction as a decimal.

266) $\frac{3}{10}$

A) 0.003

B) 3.0

C) 0.03

D) 0.3

Answer: D

267) $\frac{1}{100}$

A) 0.1

B) 0.001

C) 0.000,1

D) 0.01

Answer: D

268) $\frac{83}{100}$

- A) 0.008,3 B) 0.083 C) 0.000,83 D) 0.83
Answer: D

269) $\frac{61}{1000}$

- A) 0.61 B) 0.006,1 C) 0.000,61 D) 0.061
Answer: D

270) $\frac{889}{1000}$

- A) 0.088,9 B) 0.008,89 C) 0.000,889 D) 0.889
Answer: D

271) $\frac{736}{10}$

- A) 73.6 B) 73.006 C) 73.06 D) 73.000,6
Answer: A

272) $\frac{2,222}{100}$

- A) 22.002,2 B) 22.022 C) 22.22 D) 22.000,22
Answer: C

273) $\frac{391,392}{1000}$

- A) 391.039,2 B) 392.391 C) 391.392 D) 391.003,92
Answer: C

Arrange in order from smallest to largest.

274) 0.08, 0.02, 0.028, 0.082

- A) 0.02, 0.028, 0.08, 0.082 B) 0.02, 0.08, 0.028, 0.082
C) 0.082, 0.028, 0.08, 0.02 D) 0.028, 0.082, 0.02, 0.08

Answer: A

275) 0.054, 0.045, 0.044, 0.055

- A) 0.044, 0.045, 0.054, 0.055 B) 0.044, 0.054, 0.045, 0.055
C) 0.055, 0.054, 0.045, 0.044 D) 0.044, 0.055, 0.045, 0.054

Answer: A

276) 2.954, 2.549, 2.594, 2.459

- A) 2.459, 2.594, 2.549, 2.954 B) 2.954, 2.594, 2.549, 2.459
C) 2.459, 2.549, 2.594, 2.954 D) 2.954, 2.549, 2.594, 2.459

Answer: C

277) 5.13, 4.68, 4.86, 5.31

- A) 4.86, 4.68, 5.31, 5.13 B) 5.31, 5.13, 4.86, 4.68 C) 4.68, 4.86, 5.13, 5.31 D) 4.68, 5.13, 4.86, 5.31

Answer: C

278) 7.09, 7.9, 7.099, 7.999

A) 7.999, 7.9, 7.099, 7.09

C) 7.099, 7.09, 7.999, 7.9

B) 7.09, 7.9, 7.099, 7.999

D) 7.09, 7.099, 7.9, 7.999

Answer: D

Write as a fraction or as a mixed number

279) 80%

A) $1\frac{3}{5}$

B) $\frac{2}{5}$

C) $\frac{4}{5}$

D) 8

Answer: C

280) 0.9%

A) $\frac{9}{500}$

B) $\frac{9}{2000}$

C) $\frac{9}{100}$

D) $\frac{9}{1000}$

Answer: D

281) 750%

A) 75

B) $3\frac{3}{4}$

C) $7\frac{1}{2}$

D) 15

Answer: C

282) $\frac{1}{2}\%$

A) $\frac{1}{100}$

B) $\frac{1}{20}$

C) $\frac{1}{400}$

D) $\frac{1}{200}$

Answer: D

283) $88\frac{8}{9}\%$

A) $1\frac{7}{9}$

B) $8\frac{8}{9}$

C) $\frac{8}{9}$

D) $\frac{4}{9}$

Answer: C

284) $157\frac{1}{7}\%$

A) $15\frac{5}{7}$

B) $\frac{11}{14}$

C) $1\frac{4}{7}$

D) $3\frac{1}{7}$

Answer: C

Change to a percent.

285) 1

A) 0.1%

B) 0.01%

C) 100%

D) 50%

Answer: C

286) 0.36

A) 0.036%

B) 360%

C) 3.6%

D) 36%

Answer: D

287) 0.596
 A) 0.059,6% B) 596% C) 59.6% D) 0.596%

Answer: C

288) 5.4
 A) 540% B) 0.005,4% C) 54% D) 0.54%

Answer: A

289) 0.009,77
 A) 0.488,5% B) 0.000,977% C) 0.097,7% D) 0.977%

Answer: D

290) 0.000,86
 A) 0.008,6% B) 0.000,086% C) 0.86% D) 0.086%

Answer: D

Write as a percent. Round to the nearest hundredth of a percent when necessary.

291) $\frac{41}{100}$
 A) 41% B) 1,000% C) 4.1% D) 20.5%

Answer: A

292) $\frac{8}{11}$
 A) 1.38% B) 13.75% C) 72.73% D) 7.27%

Answer: C

293) $4\frac{5}{9}$
 A) 45.56% B) 4.56% C) 455.56% D) 100%

Answer: C

294) $\frac{19}{30}$
 A) 15.79 % B) 1.58 % C) 63.33 % D) 6.33 %

Answer: C

295) $\frac{373}{700}$
 A) 1.88 % B) 53.29 % C) 18.77 % D) 5.33 %

Answer: B

296) $\frac{5}{12}$
 A) 4.17% B) 41.7% C) 41.67% D) 4.167%

Answer: C

Solve. Round decimals to the nearest thousandth and percents to the nearest tenth of a percent.

297) Write the equivalent decimal and percent for $\frac{5}{6}$.

A) 0.953; 953%

B) 0.833; 8.33%

C) 0.953; 95.3%

D) 0.833; 83.3%

Answer: D

298) Write the equivalent decimal and percent for $\frac{19}{250}$.

A) 0.076; 7.6%

B) 0.196; 196%

C) 0.076; 0.76%

D) 0.196; 19.6%

Answer: A

299) Write the equivalent decimal and percent for $1\frac{3}{8}$.

A) 1.495; 149.5%

B) 1.495; 1,495%

C) 1.375; 13.75%

D) 1.375; 137.5%

Answer: D

300) Write the equivalent fraction and percent for 0.5.

A) $\frac{1}{20}$; 5%

B) $\frac{1}{20}$; 50%

C) $\frac{1}{2}$; 50%

D) $\frac{1}{2}$; 5%

Answer: C

301) Write the equivalent fraction and decimal for 15%.

A) $\frac{3}{20}$; 1,500

B) $\frac{3}{2}$; 1.5

C) $\frac{3}{20}$; 0.15

D) $\frac{3}{2}$; 150

Answer: C

302) The sales tax is 7.25%. Write this percent as a fraction.

A) $\frac{29}{40}$

B) $\frac{29}{4}$

C) $\frac{29}{4000}$

D) $\frac{29}{400}$

Answer: D

Solve.

303) 25% of 32 is what number?

A) 80

B) 8

C) 128

D) 12.8

Answer: B

304) What number is 40% of 39?

A) 15.6

B) 1.56

C) 156

D) 1,560

Answer: A

305) 25 is 1% of what number?

A) 25

B) 250

C) 25,000

D) 2,500

Answer: D

306) 60% of what number is 63?

A) 10.5

B) 1,050

C) 37.8

D) 105

Answer: D

- 307) 0.44 is 44% of what number?
 A) 0.1 B) 1 C) 0.01 D) 0.193,6
 Answer: B
- 308) 112 is what percent of 70?
 A) 1.6% B) 16% C) 160% D) 1,600%
 Answer: C
- 309) 9 is what percent of 50?
 A) 1.8% B) 1,800% C) 18% D) 0.18%
 Answer: C
- 310) 0.8 is 5% of what number?
 A) 0.16 B) 1.6 C) 160 D) 16
 Answer: D
- 311) 175% of 16 is what number?
 A) 2,800 B) 2.8 C) 28 D) 280
 Answer: C
- 312) 356.4 is $8\frac{1}{4}\%$ of what number?
 A) 43.2 B) 432 C) 43,200 D) 4,320
 Answer: D
- 313) 206.8 is what percent of 44?
 A) 470% B) 21.28% C) 2.13% D) 4.7%
 Answer: A
- 314) What number is 31% of 90?
 A) 27.9 B) 279 C) 27,900 D) 2,790
 Answer: A
- 315) What percent of 115 is 66.7?
 A) 580% B) 58% C) 5.8% D) 0.58%
 Answer: B
- 316) 132% of what number is 66?
 A) 17,424 B) 174.24 C) 50 D) 500
 Answer: C
- 317) 2.5% of 19,362 is what number?
 A) 4,840.5 B) 484.15 C) 48.405 D) 484.05
 Answer: D
- 318) What percent of 75,581 is 24,185.92?
 A) 0.32% B) 3.1% C) 32% D) 0.031%
 Answer: C

319) 22,086 is 180% of what number?

A) 39,754.8

B) 12,270

C) 3,975,480

D) 122.7

Answer: B

320) One day 18 mail carriers were sick with the flu. If this were 30% of the total number of mail carriers, how many mail carriers were there altogether?

A) 5,400 mail carriers

B) 60 mail carriers

C) 600 mail carriers

D) 540 mail carriers

Answer: B

321) In a recent survey of 400 people, 80 said that their favorite color of car was blue. What percent of the people surveyed liked blue cars?

A) 20%

B) 6%

C) 21%

D) 5%

Answer: A

322) The enrollment at a local college increased 10% over last year's enrollment of 1,300. Find the current enrollment.

A) 130 students

B) 1,430 students

C) 2,600 students

D) 1,310 students

Answer: B

323) The number of video stores in a region recently decreased from 59 to 39. Find the percent decrease.

A) 33.9%

B) 66.1%

C) 195%

D) 51.3%

Answer: A

Solve. Round the answer to the nearest cent, if necessary.

324) The Fenner family paid 14% of the purchase price of a \$220,000 home as a down payment. Determine the amount of the down payment.

A) \$15,714

B) \$3,080

C) \$30,800

D) \$308

Answer: C

325) A union contract calls for a 5.5% salary increase for all employees. Determine the increase for a worker who is currently making \$53,980.

A) \$2,968.90

B) \$51,011.10

C) \$56,948.90

D) \$29,689.00

Answer: A

326) Last year the profit for a company was \$84,000. This year's profit decreased by 2.6%. Find this year's profit.

A) \$2,184

B) \$21,840

C) \$62,160

D) \$81,816

Answer: D

327) A refrigerator sells for \$980. If the sales tax rate is 9.7%, what is the total price?

A) \$95.06

B) \$1,075.06

C) \$950.60

D) \$1,930.60

Answer: B

328) How much commission will an agent make on the sale of a \$312,500 house if she receives 1.2% of the selling price?

A) \$26,041.67

B) \$3,750.00

C) \$375.00

D) \$2,604.17

Answer: B

329) Find the sale price when the original price is \$95.00 and the discount rate is 36%.

A) \$3.42

B) \$34.20

C) \$60.80

D) \$91.58

Answer: C

330) A \$3,000 designer dress is on sale at 40% off. Find the sale price.

A) \$1,800.00

B) \$120.00

C) \$2,880.00

D) \$1,200.00

Answer: A

331) A diamond necklace normally sells for \$42,993. If it is first discounted by 40% and then taxed at 8.5%, find the total price.

A) \$27,998.44

B) \$27,993.44

C) \$28,088.44

D) \$27,988.44

Answer: D

Answer Key

Testname: UNTITLED1

- 1)
- 2) B
- 3) D
- 4) A
- 5) D
- 6) A
- 7) D
- 8) B
- 9) D
- 10) C
- 11) D
- 12) C
- 13) B
- 14) B
- 15) B
- 16) A
- 17) B
- 18) A
- 19) B
- 20) A
- 21) D
- 22) C
- 23) C
- 24) A
- 25) C
- 26) C
- 27) D
- 28) D
- 29) B
- 30) B
- 31) A
- 32) B
- 33) C
- 34) B
- 35) D
- 36) A
- 37) C
- 38) C
- 39) D
- 40) C
- 41) B
- 42) D
- 43) B
- 44) C
- 45) D
- 46) B
- 47) B
- 48) B
- 49) A
- 50) B

Answer Key

Testname: UNTITLED1

- 51) A
- 52) B
- 53) C
- 54) D
- 55) A
- 56) B
- 57) A
- 58) B
- 59) B
- 60) A
- 61) A
- 62) A
- 63) A
- 64) A
- 65) A
- 66) D
- 67) B
- 68) A
- 69) B
- 70) B
- 71) A
- 72) B
- 73) A
- 74) C
- 75) B
- 76) C
- 77) A
- 78) A
- 79) B
- 80) D
- 81) D
- 82) A
- 83) B
- 84) D
- 85) B
- 86) D
- 87) D
- 88) D
- 89) C
- 90) D
- 91) D
- 92) C
- 93) D
- 94) D
- 95) C
- 96) A
- 97) A
- 98) B
- 99) D
- 100) B

Answer Key

Testname: UNTITLED1

- 101) B
- 102) B
- 103) C
- 104) B
- 105) C
- 106) A
- 107) B
- 108) B
- 109) B
- 110) D
- 111) C
- 112) C
- 113) D
- 114) B
- 115) A
- 116) C
- 117) D
- 118) C
- 119) D
- 120) D
- 121) A
- 122) B
- 123) A
- 124) C
- 125) A
- 126) B
- 127) A
- 128) C
- 129) B
- 130) D
- 131) B
- 132) C
- 133) C
- 134) B
- 135) D
- 136) A
- 137) D
- 138) C
- 139) A
- 140) D
- 141) D
- 142) D
- 143) D
- 144) A
- 145) D
- 146) A
- 147) B
- 148) B
- 149) A
- 150) A

Answer Key

Testname: UNTITLED1

- 151) B
- 152) C
- 153) A
- 154) B
- 155) A
- 156) C
- 157) A
- 158) C
- 159) A
- 160) B
- 161) A
- 162) A
- 163) D
- 164) D
- 165) D
- 166) B
- 167) A
- 168) D
- 169) C
- 170) A
- 171) B
- 172) A
- 173) C
- 174) B
- 175) A
- 176) C
- 177) A
- 178) B
- 179) C
- 180) C
- 181) B
- 182) D
- 183) D
- 184) D
- 185) A
- 186) A
- 187) B
- 188) A
- 189) D
- 190) B
- 191) C
- 192) D
- 193) D
- 194) A
- 195) D
- 196) C
- 197) A
- 198) B
- 199) A
- 200) B

Answer Key

Testname: UNTITLED1

- 201) C
- 202) C
- 203) D
- 204) B
- 205) D
- 206) D
- 207) B
- 208) D
- 209) D
- 210) B
- 211) B
- 212) D
- 213) C
- 214) C
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- 217) B
- 218) C
- 219) B
- 220) C
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- 222) A
- 223) B
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- 225) C
- 226) C
- 227) A
- 228) A
- 229) B
- 230) A
- 231) B
- 232) D
- 233) A
- 234) D
- 235) A
- 236) A
- 237) C
- 238) B
- 239) B
- 240) C
- 241) D
- 242) D
- 243) C
- 244) C
- 245) A
- 246) B
- 247) B
- 248) A
- 249) A
- 250) A

Answer Key

Testname: UNTITLED1

- 251) C
- 252) A
- 253) A
- 254) D
- 255) A
- 256) D
- 257) A
- 258) C
- 259) C
- 260) A
- 261) B
- 262) C
- 263) A
- 264) D
- 265) B
- 266) D
- 267) D
- 268) D
- 269) D
- 270) D
- 271) A
- 272) C
- 273) C
- 274) A
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- 285) C
- 286) D
- 287) C
- 288) A
- 289) D
- 290) D
- 291) A
- 292) C
- 293) C
- 294) C
- 295) B
- 296) C
- 297) D
- 298) A
- 299) D
- 300) C

Answer Key

Testname: UNTITLED1

- 301) C
- 302) D
- 303) B
- 304) A
- 305) D
- 306) D
- 307) B
- 308) C
- 309) C
- 310) D
- 311) C
- 312) D
- 313) A
- 314) A
- 315) B
- 316) C
- 317) D
- 318) C
- 319) B
- 320) B
- 321) A
- 322) B
- 323) A
- 324) C
- 325) A
- 326) D
- 327) B
- 328) B
- 329) C
- 330) A
- 331) D