Final Exam Review 168 questions math 0305

Name_____

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

Solve the problem.
1) A group of 8 people wants to buy a boat. The boat costs $832. If they all pay the same amount, how   1) _____
much is each person's share?
   A) $94   B) $104   C) $114   D) $92

Answer: B
Objective: (1.6) Use Models that Involve Dividing Whole Numbers

Find the prime factorization of the number.
2) 63   2) _____
   A) $7 \cdot 7$ B) $9 \cdot 3$ C) $3 \cdot 3 \cdot 7$ D) $9 \cdot 7$

Answer: C
Objective: (1.7) Find the Prime Factorization of a Number

3) 350   3) _____
   A) $2 \cdot 2 \cdot 5 \cdot 5 \cdot 7$ B) $2 \cdot 5 \cdot 5 \cdot 7$ C) $14 \cdot 5 \cdot 5$ D) $2 \cdot 5 \cdot 7$

Answer: B
Objective: (1.7) Find the Prime Factorization of a Number

Find the LCM of the set of numbers.
4) 28, 35   4) _____
   A) 980   B) 140   C) 63   D) 35

Answer: B
Objective: (1.7) Find the Least Common Multiple of Two or More Numbers

5) 40, 70   5) _____
   A) 110   B) 2800   C) 280   D) 70

Answer: C
Objective: (1.7) Find the Least Common Multiple of Two or More Numbers

Find the greatest common factor of the numbers.
6) 480 and 9000   6) _____
   A) 360   B) 60   C) 120   D) 480

Answer: C
Objective: (1.7) Find the Greatest Common Factor of Two or More Numbers

7) 40 and 16   7) _____
   A) 56   B) 5   C) 8   D) 4

Answer: C
Objective: (1.7) Find the Greatest Common Factor of Two or More Numbers

1

Simplify the expression by using the order of operations.

8) $6 \cdot 8 - 5$

    A) 53   B) 18   C) 43   D) 240

8) _____

Answer: C

Objective: (1.8) Evaluate Expressions Using the Order of Operations

9) $60 \div 10 \cdot (14 - 9)$

    A) 75   B) 93   C) 138   D) 30

9) _____

Answer: D

Objective: (1.8) Evaluate Expressions Using the Order of Operations

10) $\dfrac{26(17 - 14) - 12}{3^2 - 3}$

    A) 22   B) 11   C) 13   D) 14

10) _____

Answer: B

Objective: (1.8) Evaluate Expressions Using the Order of Operations

11) $\dfrac{11^2 - 41}{58 - 2(2 + 1)^2}$

    A) 3   B) 1   C) 2   D) 6

11) _____

Answer: C

Objective: (1.8) Evaluate Expressions Using the Order of Operations

Find the absolute value.

12) $|12|$

    A) -12   B) 0   C) 24   D) 12

12) _____

Answer: D

Objective: (2.2) Compute the Absolute Value of a Number

13) $|-21|$

    A) -21   B) 42   C) 21   D) 0

13) _____

Answer: C

Objective: (2.2) Compute the Absolute Value of a Number

14) $|0|$

    A) 2   B) 0   C) 1   D) -1

14) _____

Answer: B

Objective: (2.2) Compute the Absolute Value of a Number

Find the value of the expression.

15) $|-7 - 3| + |-11 - 16|$

    A) -9   B) 1   C) -31   D) 37

15) _____

Answer: D

Objective: (2.2) Evaluate Numerical Expressions

Add.

16) –7 + 5

    A) –2   B) –12   C) 12   D) 2

16) _____

Answer: A

Objective: (2.3) Add Integers Using Absolute Value

17) –2 + 67

    A) 65   B) –69   C) 69   D) –65

17) _____

Answer: A

Objective: (2.3) Add Integers Using Absolute Value

18) –39 + 0

    A) 39   B) –390   C) –39   D) 0

18) _____

Answer: C

Objective: (2.3) Add Integers Using Absolute Value

19) 21 + (–21)

    A) 42   B) –21   C) 21   D) 0

19) _____

Answer: D

Objective: (2.3) Add Integers Using Absolute Value

Subtract.

20) 0 – 9

    A) 9   B) –9   C) 0   D) not possible

20) _____

Answer: B

Objective: (2.3) Subtract Integers

21) –20 – 0

    A) 0   B) –20   C) 20   D) not possible

21) _____

Answer: B

Objective: (2.3) Subtract Integers

Simplify.

22) 1 + (–5) – 12

    A) 8   B) 16   C) –16   D) 18

22) _____

Answer: C

Objective: (2.3) Evaluate Expressions that Include Both Addition and Subtraction

23) 2 + 6 – (–12)

    A) 20   B) –16   C) –4   D) –20

23) _____

Answer: A

Objective: (2.3) Evaluate Expressions that Include Both Addition and Subtraction

24) 8 + (–2) – (–5) – 16

    A) 27   B) 17   C) –5   D) 21

24) _____

Answer: C

Objective: (2.3) Evaluate Expressions that Include Both Addition and Subtraction

Evaluate.

25) |5 - 9|

    A) -4   B) 14   C) -14   D) 4

25) _____

Answer: D

Objective: (2.3) Evaluate Expressions Involving Absolute Value

26) |-12| + (-14)

    A) -2   B) 2   C) -26   D) 26

26) _____

Answer: A

Objective: (2.3) Evaluate Expressions Involving Absolute Value

27) - |-17| - |13|

    A) -4   B) -30   C) 30   D) 4

27) _____

Answer: B

Objective: (2.3) Evaluate Expressions Involving Absolute Value

Multiply.

28) 8(6)

    A) 48   B) 38   C) 480   D) 40

28) _____

Answer: A

Objective: (2.4) Multiply Integers

29) -3(-5)

    A) -12   B) 5   C) -15   D) 15

29) _____

Answer: D

Objective: (2.4) Multiply Integers

30) -7(8)

    A) 46   B) -56   C) -49   D) 56

30) _____

Answer: B

Objective: (2.4) Multiply Integers

31) -19(-11)

    A) 209   B) -228   C) 228   D) 220

31) _____

Answer: A

Objective: (2.4) Multiply Integers

32) -4(-3)(-4)

    A) 52   B) 48   C) -58   D) -48

32) _____

Answer: D

Objective: (2.4) Multiply Integers

33) 7(-1)(10)(-3)

    A) 37   B) 0   C) 210   D) -210

33) _____

Answer: C

Objective: (2.4) Multiply Integers

Divide, if possible. If a quotient is undefined, state so.

34) $-12 \div 6$

    A) -3 B) -2 C) 2   D) -1

34) _____

Answer: B
Objective: (2.4) Divide Integers

35) $\dfrac{24}{-4}$

    A) 6   B) -6 C) -5 D) -7

35) _____

Answer: B
Objective: (2.4) Divide Integers

36) $\dfrac{-14}{-2}$

    A) -8 B) 7   C) -6 D) -7

36) _____

Answer: B
Objective: (2.4) Divide Integers

37) $\dfrac{-25}{0}$

    A) 0   B) 1   C) 25   D) Undefined

37) _____

Answer: D
Objective: (2.4) Divide Integers

38) $\dfrac{0}{-92}$

    A) 1   B) -92 C) Undefined   D) 0

38) _____

Answer: D
Objective: (2.4) Divide Integers

Evaluate.

39) $-51 + (-12)$

    A) -39 B) 39   C) -63 D) 63

39) _____

Answer: C
Objective: (2.4) Add or Subtract Integers

40) $12 - 8$

    A) 20   B) -20 C) 4   D) -4

40) _____

Answer: C
Objective: (2.4) Add or Subtract Integers

41) $-5 - 20$

    A) -25 B) 15   C) 25   D) -15

41) _____

Answer: A
Objective: (2.4) Add or Subtract Integers

42) –3 – (–9)

    A) –3   B) 6   C) –12   D) –6

42) _____

Answer: B

Objective: (2.4) Add or Subtract Integers

Perform the indicated operations.

43) $\dfrac{14 - 20}{-1}$

43) _____

    A) –7   B) 6   C) 34   D) –6

Answer: B

Objective: (2.4) Perform Multiple Operations on Integers

44) $\dfrac{-12}{-5 - 7}$

44) _____

    A) –1   B) –12   C) 12   D) 1

Answer: D

Objective: (2.4) Perform Multiple Operations on Integers

45) $\dfrac{48}{-6} - \dfrac{24}{-8}$

45) _____

    A) 5   B) –11   C) –5   D) 11

Answer: C

Objective: (2.4) Perform Multiple Operations on Integers

46) $\dfrac{-45}{5} - \dfrac{3}{3}$

46) _____

    A) –10   B) 8   C) 9   D) –9

Answer: A

Objective: (2.4) Perform Multiple Operations on Integers

Evaluate.

47) -4^3

47) _____

    A) –64   B) 64   C) –256   D) 256

Answer: A

Objective: (2.5) Evaluate Exponential Notation

48) $(-3)^3$

48) _____

    A) 9   B) –27   C) 27   D) –81

Answer: B

Objective: (2.5) Evaluate Exponential Notation

49) $(-6)^2$

49) _____

    A) 36   B) 6   C) –6   D) –36

Answer: A

Objective: (2.5) Evaluate Exponential Notation

50) -2^2

    A) 4   B) -4   C) -8   D) 8

50) _____

Answer: B

Objective: (2.5) Evaluate Exponential Notation

Simplify using order of operations.

51) $8 + 4 \cdot (-8)$

    A) 96   B) 24   C) -96   D) -24

51) _____

Answer: D

Objective: (2.5) Apply the Order of Operations Using Integers

52) $-4 + 9(4 - 6)$

    A) 10   B) 22   C) -22   D) -10

52) _____

Answer: C

Objective: (2.5) Apply the Order of Operations Using Integers

53) $5(-3 + 7) - (3 - 7)$

    A) 4   B) -24   C) -4   D) 24

53) _____

Answer: D

Objective: (2.5) Apply the Order of Operations Using Integers

54) $\dfrac{-\left|22 - 42\right|^2}{3(-10) + 26}$

    A) -18   B) 9   C) 18   D) 15

54) _____

Answer: B

Objective: (2.5) Apply the Order of Operations Using Integers

Evaluate the expression for the given values of the variables.

55) $9x$ for $x = 6$

    A) 6   B) 15   C) 9   D) 54

55) _____

Answer: D

Objective: (2.6) Evaluate Algebraic Expressions

56) $23 - z^2$ for $z = -4$

    A) 7   B) 184   C) 31   D) 39

56) _____

Answer: A

Objective: (2.6) Evaluate Algebraic Expressions

57) $x^2 + 2x + 4$ for $x = 7$

    A) 32   B) 25   C) 55   D) 67

57) _____

Answer: D

Objective: (2.6) Evaluate Algebraic Expressions

58) $8x^2 + 4y$ for $x = 7$, and $y = 6$

    A) 316   B) 416   C) 2544   D) 3160

58) _____

Answer: B

Objective: (2.6) Evaluate Algebraic Expressions

59) $b^2 - 4ac$ for b = -2, a = 2, c = 2   59) _____

    A) -18   B) -12   C) -22   D) -8

Answer: B

Objective: (2.6) Evaluate Algebraic Expressions

Use the distributive property to rewrite the algebraic expression without parentheses. Then simplify the result, if possible.

60) -5(x + y)   60) _____

    A) -5xy   B) -5x + 5y   C) -5x - 5y   D) -5x + y

Answer: C

Objective: (2.6) Simplify Algebraic Expressions and Use the Distributive Property

61) 6(5x - 5)   61) _____

    A) 30x - 30   B) 30x - 5   C) 60x   D) 11x - 11

Answer: A

Objective: (2.6) Simplify Algebraic Expressions and Use the Distributive Property

Simplify the expression.

62) 6a - 2a + 4   62) _____

    A) 8a   B) -4a + 4   C) 8a + 4   D) 4a + 4

Answer: D

Objective: (2.6) Simplify Algebraic Expressions and Use the Distributive Property

63) 3 + 2(x + 4y)   63) _____

    A) 3 + 2x + 4y   B) 5x + 4y   C) 3 + 2x + 8y   D) 3 + 8xy

Answer: C

Objective: (2.6) Simplify Algebraic Expressions and Use the Distributive Property

64) 6x - (8 - 4x)   64) _____

    A) 2x - 8   B) 10x + 8   C) 6x - 12   D) 10x - 8

Answer: D

Objective: (2.6) Simplify Algebraic Expressions and Use the Distributive Property

65) -4(2x - 10) - 4x + 9   65) _____

    A) 12x + 49   B) -12x + 49   C) -12x - 31   D) 4x + 49

Answer: B

Objective: (2.6) Simplify Algebraic Expressions and Use the Distributive Property

Determine if the given integer value for the variable is a solution to the equation.

66) x + 1 = 16; 15   66) _____

    A) Yes   B) No

Answer: A

Objective: (2.7) Determine Whether a Number is a Solution of an Equation

67) 8n = 45 - n; 5   67) _____

    A) Yes   B) No

Answer: A

Objective: (2.7) Determine Whether a Number is a Solution of an Equation

68) 3(t - 4) = 26; 11

    A) Yes   B) No

    Answer: B

    Objective: (2.7) Determine Whether a Number is a Solution of an Equation

68) _____

69) 6k + 5 = 4k + 9; 2

    A) Yes   B) No

    Answer: A

    Objective: (2.7) Determine Whether a Number is a Solution of an Equation

69) _____

Use the addition property of equality to solve the equation.

70) -22 = n - 6

    A) -16   B) 28   C) -28   D) 16

    Answer: A

    Objective: (2.7) Use the Addition Property of Equality to Solve Linear Equations

70) _____

71) f + 3 = -13

    A) 10   B) 16   C) -10   D) -16

    Answer: D

    Objective: (2.7) Use the Addition Property of Equality to Solve Linear Equations

71) _____

72) x + 5 = 19

    A) $\frac{5}{19}$ B) -14   C) 14   D) 24

    Answer: C

    Objective: (2.7) Use the Addition Property of Equality to Solve Linear Equations

72) _____

73) a - 18 = -5

    A) -23   B) -13   C) 13   D) 23

    Answer: C

    Objective: (2.7) Use the Addition Property of Equality to Solve Linear Equations

73) _____

74) -28 = 8 + a

    A) -36   B) 36   C) -20   D) 20

    Answer: A

    Objective: (2.7) Use the Addition Property of Equality to Solve Linear Equations

74) _____

75) x + 2 = -23 + 7

    A) -32   B) 18   C) -18   D) 32

    Answer: C

    Objective: (2.7) Use the Addition Property of Equality to Solve Linear Equations

75) _____

76) -5 - 27 = m - 10

    A) 42   B) -42   C) -22   D) 22

    Answer: C

    Objective: (2.7) Use the Addition Property of Equality to Solve Linear Equations

76) _____

Use the multiplication property of equality to solve the equation.

77) $7x = 42$ 77) _____

    A) 294   B) $\frac{1}{6}$ C) 35   D) 6

Answer: D
Objective: (2.7) Use the Multiplication Property of Equality to Solve Linear Equations

78) $8a = -16$ 78) _____
    A) -2   B) 1   C) 24   D) -24
Answer: A
Objective: (2.7) Use the Multiplication Property of Equality to Solve Linear Equations

79) $\frac{x}{5} = 20$ 79) _____

    A) 95   B) 100   C) 80   D) 25

Answer: B
Objective: (2.7) Use the Multiplication Property of Equality to Solve Linear Equations

80) $\frac{x}{-4} = 29$ 80) _____

    A) -87   B) -33   C) -112   D) -116

Answer: D
Objective: (2.7) Use the Multiplication Property of Equality to Solve Linear Equations

Solve the problem.

81) The formula for the area of a rectangle is A = lw. Find the length of a rectangle with a width of 14   81) _____
feet and an area of 168 square feet.
    A) 14 feet   B) 12 feet   C) 140 feet   D) 154 feet

Answer: B
Objective: (2.7) Use the Multiplication Property of Equality to Solve Linear Equations

Use both properties of equality to solve the equation.

82) $8r + 5 = 77$ 82) _____
    A) 4   B) 64   C) 9   D) 68
Answer: C
Objective: (2.8) Apply the Addition and Multiplication Properties of Equality to Solve Basic Linear Equations

83) $2n - 8 = 10$ 83) _____
    A) 20   B) 16   C) 13   D) 9
Answer: D
Objective: (2.8) Apply the Addition and Multiplication Properties of Equality to Solve Basic Linear Equations

84) $20 = 3x + 5$ 84) _____
    A) 5   B) 1   C) 16   D) 12
Answer: A
Objective: (2.8) Apply the Addition and Multiplication Properties of Equality to Solve Basic Linear Equations

85) 79 = 7 - 9m   85) _____
   A) -8   B) -63   C) -1   D) -67

   Answer: A
   Objective: (2.8) Apply the Addition and Multiplication Properties of Equality to Solve Basic Linear Equations

86) -53 = 10y + 7   86) _____
   A) -66   B) -6   C) -70   D) 12

   Answer: B
   Objective: (2.8) Apply the Addition and Multiplication Properties of Equality to Solve Basic Linear Equations

Solve the equation.

87) -3a + 4 + 4a = 12 - 26   87) _____
   A) {42}   B) {-18}   C) {-42}   D) {18}

   Answer: B
   Objective: (2.8) Combine Like Terms and Apply the Distributive Property with Variables on One Side of the
              Equation

88) -4 = 3y - y   88) _____
   A) {-2}   B) {2}   C) {1}   D) {-4}

   Answer: A
   Objective: (2.8) Combine Like Terms and Apply the Distributive Property with Variables on One Side of the
              Equation

89) -2(2 + x) = -14   89) _____
   A) {5}   B) {-16}   C) {9}   D) {-12}

   Answer: A
   Objective: (2.8) Combine Like Terms and Apply the Distributive Property with Variables on One Side of the
              Equation

90) -(x + 5) + 6 = -4   90) _____
   A) {6}   B) {5}   C) {4}   D) {-3}

   Answer: B
   Objective: (2.8) Combine Like Terms and Apply the Distributive Property with Variables on One Side of the
              Equation

91) 2p + 14 = 3p - 1   91) _____
   A) 6   B) 16   C) 15   D) 14

   Answer: C
   Objective: (2.8) Solve a Linear Equation with the Variable on Both Sides of the Equation

92) 3m + 15 = 4m + 5   92) _____
   A) 9   B) 6   C) 11   D) 10

   Answer: D
   Objective: (2.8) Solve a Linear Equation with the Variable on Both Sides of the Equation

93) 10y = 7y + 7 + 2y   93) _____
   A) -70   B) -7   C) 70   D) 7

   Answer: D
   Objective: (2.8) Solve a Linear Equation with the Variable on Both Sides of the Equation

94) -8b + 4 + 6b = -3b + 9   94) _____

    A) -9   B) 5   C) 9   D) -4

Answer: B

Objective: (2.8) Solve a Linear Equation with the Variable on Both Sides of the Equation

Solve the problem.

95) The sum of a number and three is negative fifteen. Find the number.   95) _____

    A) -12   B) 18   C) 0   D) -18

Answer: D

Objective: (2.9) Solve Direct Translation Problems Containing One Unknown

96) The sum of a number and two is negative sixteen. Find the number.   96) _____

    A) -18   B) -14   C) 0   D) 18

Answer: A

Objective: (2.9) Solve Direct Translation Problems Containing One Unknown

97) Seven times a number, added to 9, is 16. Find the number.   97) _____

    A) 7   B) 1   C) -1   D) 49

Answer: B

Objective: (2.9) Solve Direct Translation Problems Containing One Unknown

98) Six times a number, added to 6, is 30. Find the number.   98) _____

    A) 4   B) 144   C) -4   D) 24

Answer: A

Objective: (2.9) Solve Direct Translation Problems Containing One Unknown

99) During an intramural basketball game, Team A scored 19 fewer points than Team B. Together, both   99) _____
teams scored a total of 151 points. How many points did Team A score during the game?

    A) 75 points   B) 85 points   C) 67 points   D) 66 points

Answer: D

Objective: (2.9) Solve Direct Translation Problems Containing One Unknown

100) Jordan sold his used electric saw and accessories for $324. If he received five times as much money   100) _____
for the electric saw as he did for the accessories, find how much money he received for the
electric saw.

    A) $64   B) $1620   C) $270   D) $54

Answer: C

Objective: (2.9) Solve Direct Translation Problems Containing One Unknown

101) The BBQ committee always orders one pound of ribs for each person who signs up for the   101) _____
Homecoming BBQ, plus 12 extra pounds of ribs. If the committee ordered 110 pounds of ribs this
year, find the number of people who signed up for the BBQ.

    A) 12 people   B) 110 people   C) 122 people   D) 98 people

Answer: D

Objective: (2.9) Solve Direct Translation Problems Containing One Unknown

Divide and simplify.

102) $\dfrac{1}{4} \div \dfrac{5}{6}$

102) _____

A) $\dfrac{5}{24}$ B) $\dfrac{24}{5}$ C) $\dfrac{10}{3}$ D) $\dfrac{3}{10}$

Answer: D
Objective: (3.3) Divide Fractions

Determine whether the given number is a solution of the equation.

103) $8b - 6 = 9 - 7b;\quad b = 1$

103) _____

A) No   B) Yes

Answer: B
Objective: (3.3) Determine Whether the Given Number is a Solution of the Equation

Perform the indicated operation and write the answer in lowest terms.

104) $\dfrac{2}{3} + \dfrac{1}{6}$

104) _____

A) $\dfrac{1}{2}$ B) $\dfrac{8}{9}$ C) $\dfrac{1}{3}$ D) $\dfrac{5}{6}$

Answer: D
Objective: (3.5) Add or Subtract Fractions with Unlike Denominators

105) $\dfrac{6}{8} - \dfrac{1}{9}$

105) _____

A) $\dfrac{23}{36}$ B) $\dfrac{5}{72}$ C) $\dfrac{1}{9}$ D) $\dfrac{5}{8}$

Answer: A
Objective: (3.5) Add or Subtract Fractions with Unlike Denominators

Simplify the expression.

106) $\dfrac{7}{9} \div \dfrac{3}{4} - \dfrac{4}{9}$

106) _____

A) $\dfrac{26}{27}$ B) $\dfrac{52}{45}$ C) $\dfrac{32}{45}$ D) $\dfrac{16}{27}$

Answer: D
Objective: (3.6) Evaluate Expressions Using the Order of Operations

Simplify the complex fraction by simplifying the numerator and denominator separately.

107) $\dfrac{\frac{2}{7}}{\frac{1}{5}}$

107) _____

A) $\dfrac{2}{35}$ B) $\dfrac{4}{17}$ C) $\dfrac{7}{10}$ D) $\dfrac{10}{7}$

Answer: D
Objective: (3.6) Simplify Complex Fractions Using the Order of Operations

Simplify the complex fraction using the LCD method.

108) $\dfrac{\frac{5}{3} - \frac{5}{7}}{\frac{8}{5} - \frac{2}{7}}$

108) _____

   A) $\dfrac{125}{69}$ B) $\dfrac{50}{99}$ C) $\dfrac{50}{69}$ D) $\dfrac{69}{50}$

   Answer: C
   Objective: (3.6) Simplify Complex Fractions Using the LCD

Simplify the complex fraction.

109) $\dfrac{4 + \frac{2}{x}}{\frac{x}{3} + \frac{1}{6}}$

109) _____

   A) 12 B) 1 C) $\dfrac{12}{x}$ D) $\dfrac{x}{12}$

   Answer: C
   Objective: (3.6) Simplify Complex Fractions Using any Method

Use the properties of equality to solve the equation.

110) $\dfrac{2}{5}n = 6$

110) _____

   A) $\left\{\dfrac{1}{15}\right\}$ B) $\{15\}$ C) $\left\{\dfrac{5}{12}\right\}$ D) $\left\{\dfrac{12}{5}\right\}$

   Answer: B
   Objective: (3.8) Solve Equations Containing Fractions

111) $-\dfrac{4}{9}y = -\dfrac{1}{4}$

111) _____

   A) $\left\{-\dfrac{9}{16}\right\}$ B) $\left\{\dfrac{9}{16}\right\}$ C) $\left\{\dfrac{9}{4}\right\}$ D) $\left\{\dfrac{16}{9}\right\}$

   Answer: B
   Objective: (3.8) Solve Equations Containing Fractions

112) $\dfrac{x + 6}{7} = \dfrac{x + 7}{8}$

112) _____

   A) $\left\{\dfrac{13}{15}\right\}$ B) $\left\{\dfrac{1}{56}\right\}$ C) $\left\{\dfrac{13}{56}\right\}$ D) $\{1\}$

   Answer: D
   Objective: (3.8) Solve Equations Containing Fractions

Use the LCD to simplify and solve.

113) $\frac{1}{2}x - \frac{2}{5}x = 1$

    A) {10}   B) {-20}   C) {20}   D) {-10}

113) _____

Answer: A
Objective: (3.8) Solve Equations Using the LCD

114) $\frac{4}{3}x + \frac{1}{2} = \frac{x}{6} + \frac{1}{4}$

    A) $\left\{-\frac{3}{14}\right\}$ B) $\left\{10\frac{4}{5}\right\}$ C) $\left\{-\frac{1}{6}\right\}$ D) $\left\{-\frac{2}{5}\right\}$

114) _____

Answer: A
Objective: (3.8) Solve Equations Using the LCD

115) $-\frac{5}{6}x = \frac{4}{9} - \frac{1}{3}$

    A) $\left\{\frac{2}{15}\right\}$ B) $\left\{\frac{4}{15}\right\}$ C) $\left\{-\frac{2}{15}\right\}$ D) $\left\{-\frac{4}{15}\right\}$

115) _____

Answer: C
Objective: (3.8) Solve Equations Using the LCD

116) $\frac{x}{4} = \frac{x}{9} + \frac{9}{4}$

    A) $\left\{\frac{5}{81}\right\}$ B) $\left\{\frac{81}{5}\right\}$ C) $\left\{-\frac{9}{4}\right\}$ D) {0}

116) _____

Answer: B
Objective: (3.8) Solve Equations Using the LCD

Add.

117) 7.07 + 0.52

    A) 7.63   B) 6.55   C) 7.55   D) 7.59

117) _____

Answer: D
Objective: (4.3) Add Decimals

118) 499.27 + 7.65

    A) 506.92   B) 506.81   C) 506.82   D) 506.91

118) _____

Answer: A
Objective: (4.3) Add Decimals

Subtract.

119) 18.43 - 13.919

    A) 32.349   B) 4.611   C) 4.511   D) 33.349

119) _____

Answer: C
Objective: (4.3) Subtract Decimals

120) 13.62 − 2.188   120) _____

    A) 16.808   B) 11.432   C) 11.532   D) 15.808

    Answer: B

121) 7.719 − 3.18   121) _____

    A) 4.639   B) 4.539   C) 4.538   D) 4.549

    Answer: B

Evaluate the expression for the given replacement values.

122) $x + z$ for $x = 7.4$, $z = 0.87$ 122) _____

    A) 16.54   B) 8.27   C) 6.53   D) 16.1

    Answer: B

123) $y − x + z$ for $x = 3.6$, $y = 5$, $z = 0.80$ 123) _____

    A) 2.3   B) −0.6   C) 0.6   D) 2.2

    Answer: D

Simplify the expression by combining like terms.

124) $−7.55x + (−0.17x)$ 124) _____

    A) 7.72x   B) −7.72x   C) −7.38x   D) 7.38x

    Answer: B

125) $30.1y + 5.9 − 15.8y − 17$ 125) _____

    A) 14.3x − 11.1   B) 15.3x − 11.1   C) 14.3x + 11.1   D) 3.2x

    Answer: A

Multiply.

126) 0.07×0.5 126) _____

    A) 0.035   B) 3.5   C) 0.0035   D) 0.35

    Answer: A

127) $(13.75)(0.0058)$ 127) _____

    A) 0.08975   B) 0.17975   C) 0.06975   D) 0.07975

    Answer: D

Find the unknown number in the proportion. Round answer to the nearest hundredth when necessary.

128) $\dfrac{x}{42} = \dfrac{5}{14}$ 128) _____

    A) $x = 1.7$ B) $x = 15$ C) $x = 20$ D) $x = 117.6$

    Answer: B

129) $\dfrac{x}{51} = \dfrac{4}{17}$

    A) x = 12   B) x = 16   C) x = 1.3   D) x = 216.8

Answer: A
Objective: (5.3) Determine the Missing Number in a Proportion

130) $\dfrac{4}{x} = \dfrac{20}{10}$

    A) x = 2   B) x = 8.0   C) x = 20   D) x = 0.13

Answer: A
Objective: (5.3) Determine the Missing Number in a Proportion

Find the unknown number in the proportion. Write your answer as a whole number or a mixed number if possible.

131) $\dfrac{35}{x} = \dfrac{7}{1\frac{1}{5}}$

    A) x = 25   B) x = 7   C) x = 1   D) x = 49

Answer: C
Objective: (5.3) Determine the Missing Number in a Proportion

Find the length of the missing side for the given pair of similar figures.

132)

75 cm   n   7 cm   25 cm
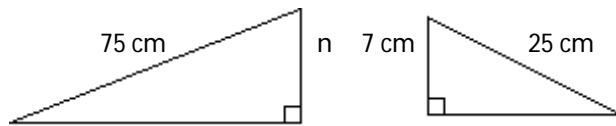
    A) 28 cm   B) 12 cm   C) 21 cm   D) 7 cm

Answer: C
Objective: (5.3) Model and Solve Problems with Similar Figures

133)

x

5 yd

15 yd   30 yd
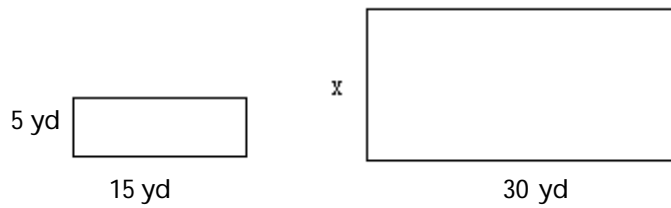
    A) 10 yd   B) 9 yd   C) 20 yd   D) 5 yd

Answer: A
Objective: (5.3) Model and Solve Problems with Similar Figures

Solve the problem.

134) A 5-foot tree casts a 13-foot shadow and creates a right triangle, as shown. At the same time, a nearby building casts a 156-foot shadow, creating a similar right triangle. What is the height of the building?

134) _____

A) 60 ft   B) 84 ft   C) 405.6 ft   D) 31.2 ft
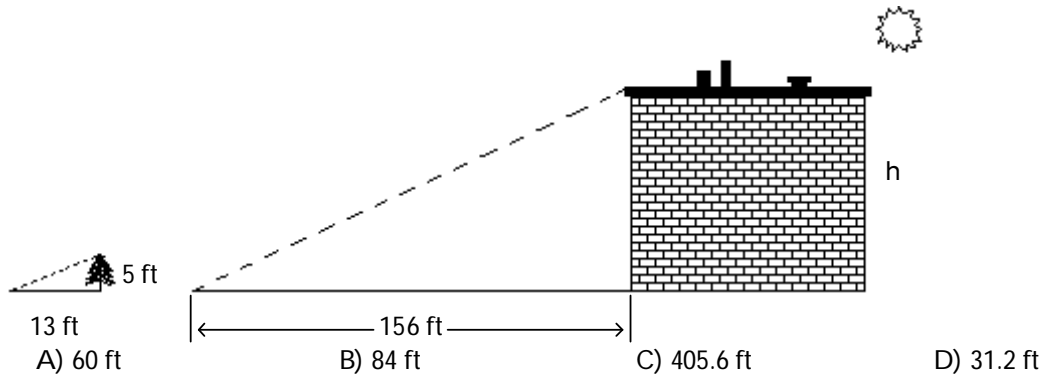
Answer: A
Objective: (5.3) Model and Solve Problems with Similar Figures

Write as a decimal.

135) 40%

135) _____

A) 0.04   B) 0.4   C) 0.29   D) 4

Answer: B
Objective: (5.4) Convert Percents to Decimals and Decimals to Percents

Write as a percent.

136) 0.568

136) _____

A) 0.0568%   B) 56.8%   C) 568%   D) 0.568%

Answer: B
Objective: (5.4) Convert Percents to Decimals and Decimals to Percents

Write the percent as a fraction in lowest terms.

137) 60%

137) _____

A) $\frac{3}{5}$ B) $\frac{3}{10}$ C) 6   D) $\frac{6}{5}$

Answer: A
Objective: (5.4) Convert Percents to Fractions and Fractions to Percents

Translate to a proportion and solve. When necessary, round to the nearest hundredth.

138) What is 45% of 500?

138) _____

A) 225   B) 22.5   C) 2.25   D) 2250

Answer: A
Objective: (5.5) Solve Percent Problems Using the Proportion Method

139) What is 7% of 9900?

139) _____

A) 6930   B) 7930   C) 693   D) 793

Answer: C
Objective: (5.5) Solve Percent Problems Using the Proportion Method

140) What percent of 50 is 12?

    A) 64%   B) 24%   C) 32%   D) 12%

140) _____

Answer: B

Objective: (5.5) Solve Percent Problems Using the Proportion Method

141) 80 is 20% of what?

    A) 4000   B) 400   C) 40   D) 16

141) _____

Answer: B

Objective: (5.5) Solve Percent Problems Using the Proportion Method

Solve the problem.

142) The parking lot at a country club has 50 cars in it. 70% of the cars are sedans. How many cars are sedans?

    A) 35 cars   B) 350 cars   C) 71 cars   D) 7 cars

142) _____

Answer: A

Objective: (5.5) Solve Problems Involving Percent

143) An insurance fund invests $118,800 in municipal bonds and earns 15% per year on the investment. How much money is earned per year?

    A) $79,200   B) $178,200   C) $792,000   D) $17,820

143) _____

Answer: D

Objective: (5.5) Solve Problems Involving Percent

144) The appliance store where the Scott family shops offers a 6% discount for paying cash. The Scott family received a discount of $43. What was their total bill before the discount?

    A) $3   B) $7   C) $300   D) $717

144) _____

Answer: D

Objective: (5.6) Solve Problems Involving Percent

Solve.

145) A $330 lamp is on sale at 30% off. Find the discount.

    A) $231.00   B) $320.10   C) $99.00   D) $9.90

145) _____

Answer: C

Objective: (5.7) Calculate Discounts and Find the Sales Price

146) A $3000 painting is on sale at 45% off. Find the sale price.

    A) $1650.00   B) $2865.00   C) $1350.00   D) $135.00

146) _____

Answer: A

Objective: (5.7) Calculate Discounts and Find the Sales Price
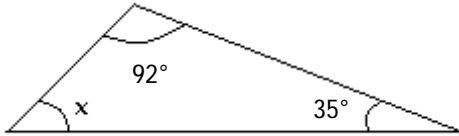
Find the requested angle.

147) The supplement of 73°.

    A) 287°   B) 197°   C) 107°   D) 17°

147) _____

Answer: C

Objective: (6.4) Work with Angles

Find the measure of ∠x in the triangle.

148)

92°

x   35°

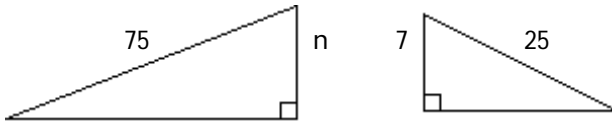A) 43°   B) 53°   C) 127°   D) 88°

Answer: B
Objective: (6.5) Find the Measures of Angles of a Triangle

148) _____

Given that the pair of triangles is similar, find the length of the side labeled n.
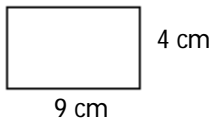
149)

75   n   7   25

A) 28   B) 7   C) 21   D) 12

Answer: C
Objective: (6.5) Work with Similar Triangles

149) _____

Find the perimeter of the figure.

150)

4 cm

9 cm
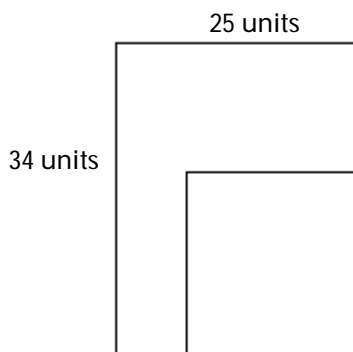
A) 13 cm   B) 10 cm   C) 26 cm   D) 16 cm

Answer: C
Objective: (6.6) Find the Perimeter and Area of a Rectangle and a Square

150) _____

151)

25 units

34 units
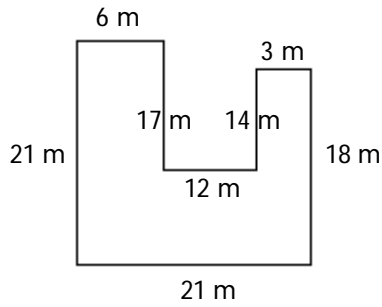
A) 84 units   B) 59 units
C) 118 units   D) not enough information given

Answer: C
Objective: (6.6) Find the Perimeter and Area of a Rectangle and a Square

151) _____

152)

A) 98 m
B) 112 m
C) 84 m
D) 95 m

Answer: B

Solve the problem.

153) How much will it cost to carpet a 19 ft by 13 ft room if carpeting costs $13.50 per square yard?
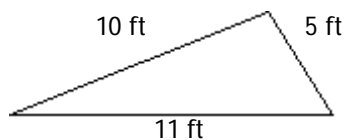A) $1111.50
B) $277.88
C) $370.50
D) $3334.50

Answer: C

Find the perimeter.

154)

A) 21 ft
B) 27.5 ft
C) 25 ft
D) 26 ft

Answer: D

Find the mean for the list of numbers.

155) Ages of patients (in years) in a clinic: 18, 2, 29, 18
Round answer to the nearest whole number if necessary.
A) 2 year(s)
B) 17 years
C) 16 years
D) 18 years

Answer: B

156) Inches of snowfall per month: 8.4, 8.8, 6.6, 8.8, 6.4
Round answer to the nearest tenth if necessary.
A) 6.5 in.
B) 7.8 in.
C) 8.4 in.
D) 8.8 in.

Answer: B

157) Annual sales bonuses: $1450, $4460, $6940, $7240, $1880, $6250
Round answer to the nearest whole number if necessary.
A) $4703
B) $7240
C) $6940
D) $4702

Answer: A

152) _____

153) _____

154) _____

155) _____

156) _____

157) _____

Solve the equation. Check your solution.

158) -3.3x = 13.2

    A) {4}   B) {-4}   C) {-0.4}   D) {-40}

158) _____

Answer: B

Objective: (8.4) Solve a Linear Equation Containing Decimals

159) x + 7.1x = 234.9

    A) {2.9}   B) {30}   C) {36.1}   D) {29}

159) _____

Answer: D

Objective: (8.4) Solve a Linear Equation Containing Decimals

160) 1.1x - 4.5 = 0.5x - 2.34

    A) {3.636}   B) {3.61}   C) {-0.278}   D) {3.6}

160) _____

Answer: D

Objective: (8.4) Solve a Linear Equation Containing Decimals

Solve the equation. State whether the equation is a contradiction, an identity, or a conditional equation.

161) -7x + 5 + 5x = -2x + 10

    A) {5}; conditional equation   B) ∅ or { }; contradiction
    C) all real numbers; identity   D) {-5}; conditional equation

161) _____

Answer: B

Objective: (8.4) Classify a Linear Equation as an Identity, Conditional, or a Contradiction

162) 2(x + 3) = (2x + 6)

    A) {12}; conditional equation   B) {0}; conditional equation
    C) ∅ or { }; contradiction   D) all real numbers; identity

162) _____

Answer: D

Objective: (8.4) Classify a Linear Equation as an Identity, Conditional, or a Contradiction

Substitute the given values into the formula and then evaluate to find the unknown quantity. Label units in your answer. If the answer is not exact, round your answer to the nearest hundredth.

163) P = 2L + 2W; P = 28, W = 9

    A) 9.5 units   B) 19 units   C) 14 units   D) 5 units

163) _____

Answer: D

Objective: (8.5) Evaluate a Formula

164) I = prt; I = 44.8, p = 160, r = 0.04

    A) 0.7 units   B) 2.8672 units   C) 7 units   D) 286.72 units

164) _____

Answer: C

Objective: (8.5) Evaluate a Formula

165) Use the formula $C = \dfrac{5}{9}(F - 32)$ to convert 167° F to degrees Celsius.

    A) 75° C   B) 110.6° C   C) 332.6° C   D) 60.8° C

165) _____

Answer: A

Objective: (8.5) Evaluate a Formula

166) The formula S = P - 0.15P gives the sale price, S, of a shirt that was marked down 15% from the   166) _____
original price, P. Find the sale price of a shirt that originally cost $36.

    A) $37.50   B) $30.60   C) $35.85   D) $41.40

Answer: B

Solve the problem.

167) A truck rental company rents a moving truck one day by charging $29 plus $0.07 per mile. Write a   167) _____
linear equation that relates the cost y, in dollars, of renting the truck to the number x of miles
driven. What is the cost of renting the truck if the truck is driven 180 miles?

    A) $y = 0.07x - 29$; $16.40   B) $y = 29x + 0.07$; $5220.07
    C) $y = 0.07x + 29$; $41.60   D) $y = 0.07x + 29$; $30.26

Answer: C

168) In a certain city, the cost of a taxi ride is computed as follows: There is a fixed charge of $2.55 as   168) _____
soon as you get in the taxi, to which a charge of $1.85 per mile is added. Find a linear equation that
can be used to determine the cost, y, of an x-mile taxi ride, and use this equation to find the cost of
a 9-mile taxi ride.

    A) $20.10   B) $19.20   C) $19.08   D) $19.38

Answer: B