Exam

Name_____

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

1) Perform the indicated operations.
$$-2 - \sqrt{6 - (-10)} + 4$$
A) The expression is undefined. B) 6
C) -2 D) -10

Answer: C

2) Multiply the fractions.
$$\frac{15}{4} \times \frac{35}{9} \times \frac{6}{35}$$
A) $\frac{5}{2}$ B) $\frac{5}{3}$ C) $\frac{21}{10}$ D) $\frac{3}{7}$

Answer: A

3) Subtract the numbers.
$$18 - 20$$
A) 38 B) 2 C) -2 D) -360

Answer: C

4) Write the expression in expanded form using the definition of an exponent.
$$2m^3n$$
A) $2 \cdot m \cdot m \cdot m \cdot n$ B) $2 \cdot m \cdot n \cdot 3$
C) $2 \cdot 2 \cdot 2 \cdot m \cdot m \cdot m \cdot n$ D) $2 \cdot m \cdot m \cdot m \cdot n \cdot n \cdot n$

Answer: A

5) To which set of numbers does -4 not belong?
A) Natural numbers B) Integers
C) Rational numbers D) Real numbers

Answer: A

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

6) A person's debt-to-income ratio is the sum of all monthly installment payments
(credit cards, loans, etc.) divided by monthly take-home pay. This number is
often considered when one is applying for a loan. Each month, Monica makes
credit card payments of $50 and $28, a student loan payment of $165, and a
payment for furniture of $63. Her monthly take-home pay is $1,700.
a. Determine Monica's debt-to-income ratio.
b. To obtain a car loan, Monica's debt-to-income ratio must be less than 0.20.
Does she meet this criteria?

6) _____

Answer: **a.** 0.18
b. Yes, $0.18 < 0.20$

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

7) Use the distributive property to clear the parentheses.

7) _____

$$-\frac{1}{3}\left(-12z + \frac{6}{5}\right)$$

A) $-4z + \frac{2}{5}$ B) $4z + \frac{6}{5}$ C) $4z + \frac{2}{5}$ D) $4z - \frac{2}{5}$

Answer: D

TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.

8) Determine if the statement is true or false.

8) _____

$-|-9| = |9|$

Answer: True   ✅ False

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

9) Subtract the numbers.

9) _____

-12.8 - 10.5

A) -2.3   B) -23.3   C) 23.3   D) 2.3

Answer: B

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

10) Use the associative property of multiplication to rewrite the expression.

10) _____

$7(3t)$

Answer: $(7 \cdot 3)t$

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

11) Subtract the numbers.

11) _____

-16 - 29

A) 13   B) 464   C) -45   D) 45

Answer: C

2

12) Which property is illustrated by the following statement?

    $28 + 0 = 28$

    A) Commutative property of addition
    B) Associative property of multiplication
    C) Inverse property of addition
    D) Identity property of addition

    Answer: D

12) _____

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

13) Simplify the fraction to lowest terms.

    $$\frac{72}{40}$$

    Answer: $\frac{9}{5}$

13) _____

14) Find the opposite of -15.4.

    Answer: 15.4

14) _____

15) Valerie trades stocks each day and analyzes her results at the end of the week.
    The first day of the week she had a profit of $700. The next two days she had a
    loss of $350 each day and the last two days she had a loss of $150 each day.
    Write an expression that describes Valerie's profit or loss for the week. Interpret
    the result.

    Answer: $700 + 2(-350) + 2(-150) = -300$; Valerie lost $300 for the week.

15) _____

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

16) Which property is illustrated by the following statement?

    $(-36) + 7 = 7 + (-36)$

    A) Distributive property
    B) Commutative property of multiplication
    C) Commutative property of addition
    D) Associative property of multiplication

    Answer: C

16) _____

17) Translate the algebraic expression into an English phrase:

    $24 - n^2$

    A) The difference of the square of n and 24
    B) The square of the difference of 24 and n
    C) The quotient of 24 and the square of n
    D) The difference of 24 and the square of n

    Answer: D

17) _____

18) Show how multiplication can be used to check the division problem.   18) _____

   $-18 \div (-6) = 3$

   A) $-3 \times (-6) = 18$ B) $3 \times (-6) = -18$ C) $3 \times 6 = 18$ D) $-3 \times 6 = -18$

   Answer: B

19) Write the expression in expanded form using the definition of an exponent.   19) _____

   $(3y)^4$

   A) $3y \cdot 3y \cdot 3y \cdot 3y$ B) $3y \cdot 4$
   C) $3 \cdot 3 \cdot 3 \cdot 3 \cdot y$ D) $3 \cdot y \cdot y \cdot y \cdot y$

   Answer: A

20) Subtract the mixed numbers.   20) _____

   $3\dfrac{3}{4} - 1\dfrac{1}{2}$

   A) $1\dfrac{1}{2}$ B) $2\dfrac{1}{3}$ C) $3\dfrac{1}{4}$ D) $2\dfrac{1}{4}$

   Answer: D

21) Multiply the real numbers.   21) _____
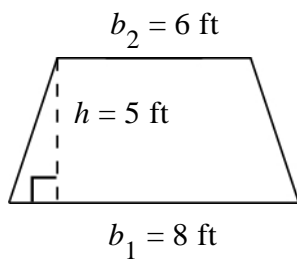
   $-7 \cdot (-13)$

   A) 91   B) -91   C) -87   D) -20

   Answer: A

22) The area of a trapezoid is given by $A = \dfrac{1}{2}(b_1 + b_2)h$, where b_1 and b_2 are the lengths of   22) _____

   the two parallel sides and h is the height. A window is in the shape of a trapezoid. Find
   the area of the trapezoid with dimensions shown in the figure.

   $b_2 = 6$ ft

   $h = 5$ ft

   $b_1 = 8$ ft

   A) $50\ ft^2$ B) $55\ ft^2$ C) $7\ ft^2$ D) $35\ ft^2$

   Answer: D

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

23) Perform the operations.   23) _____

   $-(2 - 10)^2 \cdot 3 - 10 \cdot 2$

   Answer: -212

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

24) Which fraction is not in lowest terms?   24) _____

  A) $\dfrac{14}{35}$ B) $\dfrac{23}{7}$ C) $\dfrac{7}{23}$ D) $\dfrac{3}{49}$

  Answer: A

25) Which of the following is an irrational number?   25) _____

  A) $4.5\overline{71}$ B) $\sqrt{25}$ C) $\dfrac{\sqrt{3}}{2}$ D) -7.829

  Answer: C

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

26) Perform the indicated operations.   26) _____

  $$2 + \left(-\dfrac{1}{2}\right) + \dfrac{1}{4} - 4$$

  Answer: $-\dfrac{9}{4}$

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

27) Translate the English phrase into an algebraic expression, then evaluate the expression.   27) _____
     Eight less than negative nineteen
  A) -19 - (-8) = -11   B) 8 - (-19) = 27
  C) -8 - (-19) = 11   D) -19 - 8 = -27
  Answer: D

28) Perform the operations.   28) _____

  $$\left(-\dfrac{21}{8}\right) \cdot \left(-\dfrac{4}{9}\right) \cdot \left(1\dfrac{5}{14}\right)$$

  A) $\dfrac{19}{12}$ B) $-\dfrac{5}{12}$ C) $-\dfrac{19}{12}$ D) $\dfrac{5}{12}$

  Answer: A

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

29) Write the number as a product of prime factors.   29) _____
     72
  Answer: $2 \times 2 \times 2 \times 3 \times 3$

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

30) Write a proper or improper fraction associated with the shaded region of the figure.   30) _____

A) $\dfrac{6}{8}$ B) $\dfrac{8}{2}$ C) $\dfrac{2}{8}$ D) $\dfrac{8}{6}$

Answer: A

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

31) Maureen had $831 in her savings account at the beginning of the month. She   31) _____
withdrew $40 on the third, deposited a $178 paycheck on the sixth, and withdrew
$20 on the tenth. Write a mathematical expression that describes her account
balance, then simplify the result.

Answer: $831 + (-40) + 178 + (-20) = 949$

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

32) List the coefficients in the expression.   32) _____
$$15x^3 - 9x^2 + 7$$
A) $15x^3, -9x^2, 7$ B) 15, 9, 7   C) 15, -9, 7   D) +, -, +

Answer: C

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

33) Simplify by clearing parentheses and combining like terms.   33) _____
$$-\frac{11}{3}(t - 4) + 4\left(-\frac{7}{3}t + 5\right) - \left(\frac{1}{2} - \frac{1}{3}t\right)$$

Answer: $-\dfrac{38}{3}t + \dfrac{205}{6}$

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

34) Simplify.   34) _____
$$\left| -\frac{3}{4} \right|$$
A) $\dfrac{4}{3}$ B) $\dfrac{3}{-4}$ C) $-\dfrac{4}{3}$ D) $\dfrac{3}{4}$

Answer: D

6

35) List the terms in the expression.

35) _____

$$25x^3 - 14x^2 + 7$$

A) $25x^3, -14x^2, 7$ B) $25x^3, 14x^2, 7$ C) +, -, +   D) 25, -14, 7

Answer: A

36) Use the associative property of multiplication to rewrite the expression, then simplify.

36) _____

$$\frac{5}{9}\left(\frac{18}{5}y\right)$$

A) $\left(\frac{18}{5}y\right)\frac{5}{9}$ B) $2 + \frac{5}{9}y$ C) $2y$ D) $\frac{25}{162}y$

Answer: C

37) Write the product using an exponent.

37) _____

$$27 \cdot 27 \cdot 27 \cdot 27 \cdot 27 \cdot 27$$

A) 6^6 B) 6^{27} C) $6 \cdot 27$ D) 27^6

Answer: D

38) Simplify the exponential expression.

38) _____

$$(-9)^2$$

A) 18   B) -81   C) 81   D) -18

Answer: C

39) Which statement is false?

39) _____

A) $|-12| \geq |12|$ B) $|-12| \leq |12|$ C) $|-12| = |12|$ D) $|-12| < |12|$
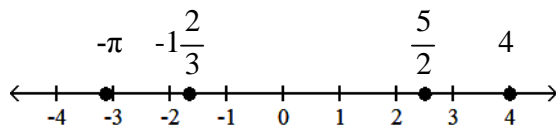
Answer: D

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

40) Plot the numbers on a real number line.

40) _____

$$\frac{5}{2}, 4, -\pi, -1\frac{2}{3}$$

Answer:

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

41) Translate the phrase into an algebraic expression. Then evaluate the expression for $z = 9$.

41) _____

The absolute value of the difference of z and 15

A) $|z - 15|$; 6   B) $|z| - 15$; -6   C) $|z| - 15$; 6   D) $|z - 15|$; -6

Answer: A

42) Translate the English phrase into an algebraic expression, then evaluate the expression.   42) _____
   Five subtracted from twenty-two fifths

   A) $\dfrac{5 - 22}{5} = -\dfrac{17}{5}$ B) $\dfrac{22}{5} - 5 = -\dfrac{3}{5}$ C) $5 - \dfrac{22}{5} = \dfrac{3}{5}$ D) $\dfrac{22 - 5}{5} = \dfrac{17}{5}$

   Answer: B

43) Divide the real numbers.   43) _____
   $$\dfrac{-10}{2}$$

   A) 5   B) –5   C) –4   D) -8

   Answer: B

44) Simplify the square root.   44) _____
   $$\sqrt{16}$$

   A) 5   B) 8   C) 6   D) 4

   Answer: D

45) Use the distributive property to clear the parentheses.   45) _____
   $5(8x + 10)$

   A) $13x + 15$ B) $40x + 10$ C) $40x + 50$ D) $(8x + 10)5$

   Answer: C

46) John began working out and found that he lost approximately $\dfrac{3}{7}$ in. off his waistline   46) _____

   every 2 months. How many inches would he lose around his waist in 8 months?

   A) $\dfrac{3}{7}$ B) $\dfrac{12}{7}$ C) $\dfrac{6}{7}$ D) $\dfrac{24}{7}$

   Answer: B

47) Divide the real numbers.   47) _____
   $-40 \div 8$

   A) -32   B) -4   C) -5   D) 5

   Answer: C

48) Find the opposite of 11.4.   48) _____

   A) -11.4   B) $\dfrac{1}{11.4}$ C) -(-11.4)   D) $-\dfrac{1}{11.4}$

   Answer: A

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

49) Perform the indicated operations.

$$\frac{5}{3} + \frac{2}{9} - \frac{1}{6} - \frac{1}{10}$$

Answer: $\frac{73}{45}$

49) _____

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

50) Perform the indicated operations.

13 + 27 - 2 - (-6) + 30

A) 66   B) 62   C) 74   D) 78

Answer: C

50) _____

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

51) For 5 weeks, Jim pays $2 a week for lottery tickets. Jim has one winning ticket for $5. Write an expression that describes his net gain or loss. How much money has Jim won or lost?

Answer: 5(-2) + 5 = -5; loss of $5

51) _____

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

52) Evaluate the expression for the given substitution.

8 + 5y; when y = -2.3

A) -29.9   B) -2   C) -3.5   D) 19.5

Answer: C

52) _____

53) Multiply the numbers.

$$5 \times 6\frac{2}{3}$$

A) $30\frac{2}{3}$ B) $10\frac{2}{3}$ C) $33\frac{1}{3}$ D) $26\frac{2}{3}$

Answer: C

53) _____

54) Which property is illustrated by the following statement?

(7 + 42) + (-14) = 7 + (42 + (-14))

A) Distributive property
B) Associative property of addition
C) Commutative property of multiplication
D) Commutative property of addition

Answer: B

54) _____

55) Which fraction is a proper fraction?

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

B) $\frac{4}{16}$

C) $-2\frac{1}{3}$

D) $\frac{20}{3}$

Answer: B

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

56) Multiply the fractions.

$$\frac{13}{3} \times \frac{5}{13}$$

Answer: $\frac{5}{3}$

57) Add the integers.

$$-10 + (-5) + 12$$

Answer: -3

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

58) Perform the operations.

$$\frac{-9 + 6}{4 \cdot (-3) + 12}$$

A) 0

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

C) undefined

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

Answer: C

59) Divide the real numbers.

$$\frac{0}{79}$$

A) 0

B) 79

C) 1

D) undefined

Answer: A

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

60) Evaluate the expression for the given substitution.

$$9 - 12t; \text{ when } t = \frac{3}{4}$$

Answer: - 0

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

61) Use the commutative property of multiplication to rewrite the expression.　　　　　61) _____
$$z(-10)$$
A) $(-z)(10)$　　　　　B) $10z$　　　　　C) $-10z$　　　　　D) $(z)(-10)$

Answer: C

62) Which of the following expressions is a variable?　　　　　62) _____
A) $|18.9|$　　　　　B) 6.7　　　　　C) x　　　　　D) -7

Answer: C

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

63) Write the product using exponents.　　　　　63) _____
$$12 \cdot a \cdot a \cdot a \cdot b \cdot b \cdot b \cdot b$$

Answer: $12a^3b^4$

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

64) Divide the fractions.　　　　　64) _____
$$\frac{3}{35} \div \frac{2}{21}$$

A) $\frac{10}{9}$　　　　　B) $\frac{9}{5}$　　　　　C) $\frac{6}{735}$　　　　　D) $\frac{9}{10}$

Answer: D

65) Simplify the exponential expression.　　　　　65) _____
$$(-0.5)^2$$
A) -1　　　　　B) -0.25　　　　　C) 1　　　　　D) 0.25

Answer: D

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

66) Aly is trying to limit her total calorie intake for breakfast and lunch to 890　　　　　66) _____
calories. The number of calories that she can consume for lunch is given by the
expression $890 - b$, where b is the number of calories consumed for breakfast.
Determine the number of calories allowed for lunch assuming that she had the
following number of calories at breakfast:
   a. 445 calories   **b.** 515 calories   **c.** 355 calories

Answer: **a.** 445 calories; **b.** 375 calories; **c.** 535 calories

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

67) Which of the following is an algebraic expression? 67) _____

    A) y B) $-13z + 9$

    C) 43 D) all of the above

Answer: D

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

68) Translate the phrase into a mathematical expression, then simplify the result. 68) _____

    The sum of 26, -7, -20, and -16

Answer: $26 + (-7) + (-20) + (-16);\ -17$

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

69) Which property is illustrated by the following statement? 69) _____

    $75 + (-75) = 0$

    A) Commutative property of addition

    B) Associative property of multiplication

    C) Inverse property of addition

    D) Identity property of addition

Answer: C

70) What is the multiplicative inverse of 56? 70) _____

    A) -56   B) $\dfrac{1}{56}$ C) 1   D) 0

Answer: B

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

71) The plans for building a deck require Shelly to cut a board that's $7\dfrac{3}{4}$ feet long into 71) _____

    3 equal pieces. How long should each piece be?

Answer: $2\dfrac{7}{12}$ feet

72) Identify the numerator of the fraction. 72) _____

    $\dfrac{22}{41}$

Answer: 22

73) Simplify.
       $- |42|$

     A) -42   B) 42   C) $-\dfrac{1}{42}$ D) $\dfrac{1}{42}$

73) _____

Answer: A

74) Perform the operations.
       (-2)(-2)(-3)

     A) -14   B) 12   C) -11   D) -12

74) _____

Answer: D

75) Divide the fractions.
$$\frac{11}{6} \div \frac{7}{3}$$

     A) $\dfrac{18}{9}$ B) $\dfrac{11}{14}$ C) $\dfrac{77}{3}$ D) $\dfrac{77}{18}$

75) _____

Answer: B

76) Use the order of operations to simplify the expression.
       $-2 \cdot 5 - 3 \cdot 3$

     A) 1   B) 8   C) -19   D) -12

76) _____

Answer: C

77) Simplify by combining like terms.
$$\frac{2}{3}y + 5 - \frac{5}{3}y + \frac{1}{2}$$

     A) $-y + \dfrac{11}{2}$ B) $\dfrac{7}{3}y + \dfrac{11}{2}$ C) $\dfrac{9}{2}y$ D) $-y + \dfrac{5}{2}$

77) _____

Answer: A

78) Simplify the fraction to lowest terms.
$$\frac{60}{315}$$

     A) $\dfrac{4}{21}$ B) $\dfrac{8}{42}$ C) $\dfrac{10}{52}$ D) $\dfrac{5}{24}$

78) _____

Answer: A

79) Perform the indicated operations.

$$\frac{7 - 8 + 3}{8 + (-6)}$$

A) $-\frac{2}{7}$ B) $\frac{1}{7}$ C) -1 D) 1

79) _____

Answer: D

80) Which statement is false?

A) $-7 > -8$ B) $-8 > -7$ C) $-8 < -7$ D) $8 > 7$

80) _____

Answer: B

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

81) Fill in the blank to make the statement correct.

$-32 - 10 = -32 +$ ____

81) _____

Answer: -10

82) Translate the phrase into a mathematical expression, then simplify the result.

Eight more than the sum of -5 and -7

82) _____

Answer: $[-5 + (-7)] + 8$; -4

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

83) Use the order of operations to simplify the expression.

$$\frac{17 - 5(2 \cdot 5 - 16)}{14 - 2(5 \cdot 3 - 10)}$$

A) $\frac{17}{14}$ B) $\frac{47}{4}$ C) $\frac{49}{26}$ D) $\frac{127}{84}$

83) _____

Answer: B

84) Multiply the fractions.

$$\frac{23}{24} \times 4$$

A) $\frac{23}{6}$ B) $\frac{23}{96}$ C) $\frac{2,208}{24}$ D) $\frac{92}{96}$

84) _____

Answer: A

85) Multiply the fractions.

$$\frac{20}{3} \times \frac{18}{25}$$

A) $\frac{38}{28}$ B) $\frac{250}{57}$ C) $\frac{554}{75}$ D) $\frac{24}{5}$

Answer: D

85) _____

86) A national safety organization has estimated that 1/5 of all drivers on the road after midnight on weekends is legally intoxicated. If there are 290 drivers on a stretch of highway during this time period, how many would this organization estimate to be driving while intoxicated?
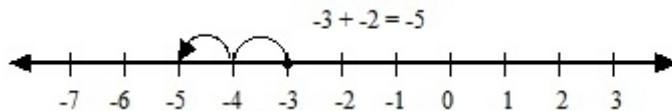
A) 116   B) 53   C) 174   D) 58

Answer: D

86) _____

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

87) Use a number line to add the numbers.

-3 + (-2)

Answer:

87) _____

88) Use the commutative property of addition to rewrite the expression.

$12 + 7y$

Answer: $7y + 12$

88) _____

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

89) Simplify the expression.

$$\left(\frac{2}{3}\right)^4$$

A) $\frac{16}{81}$ B) $\frac{8}{3}$ C) $\frac{16}{3}$ D) $\frac{8}{12}$

Answer: A

89) _____

90) Simplify the fraction to lowest terms.

$$\frac{21}{15}$$

A) $\frac{7}{5}$ or $1\frac{2}{5}$ B) $\frac{21}{15}$ C) $\frac{2}{5}$ D) $\frac{5}{7}$

Answer: A

90) _____

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

91) Translate the English phrase into an algebraic expression, then evaluate the expression.

The difference of -5 and -14

Answer: -5 - (-14);   9

91) _____

92) Joe Fabeets compiles all of his financial information and finds that he is in debt by $6,000. (In other words, his net worth is -$6,000). His brother Mel Fabeets has a positive net worth of $7,000. Find the difference in their net worths.

Answer: $13,000

92) _____

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

93) At a super bowl party, 2/3 of the pizza remains after the game, to be split equally among 4 people. What share of the original pizza will each get?

A) 8/3   B) 1/6   C) 1/10   D) 3/8

Answer: B

93) _____

94) Translate the English phrase into an algebraic expression, then evaluate the expression.

The number -0.3 plus the quantity 3 times -0.42

A) (-0.3 + 3)(-0.42); -1.134   B) (-0.3 + 3)(-0.42); -1.56

C) -0.3 + 3 (-0.42); -1.134   D) -0.3 + 3 (-0.42); -1.56

Answer: D

94) _____

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

95) Translate the phrase into an algebraic expression.

The product of five and the difference of eleven and t

Answer: $5(11 - t)$

95) _____

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

96) Evaluate the expression below for $a = -5$, $b = -7$, and $c = -2$.

$(a + b) - c$

A) -14   B) 4   C) 0   D) -10

Answer: D

96) _____

97) Which number is a composite number?

A) 17   B) 37   C) 3   D) 18

Answer: D

97) _____

98) Simplify the expression.

$(0.9)^2$

98) _____

Answer: 0.81

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

99) Which fraction is in lowest terms?

99) _____

A) $\dfrac{8}{20}$
B) $\dfrac{5}{2}$
C) $\dfrac{60}{40}$
D) $\dfrac{20}{8}$

Answer: B

100) Use the order of operations to simplify the expression.

$100 \div 10 \cdot 2 + (4^2 - |-4|)$

100) _____

A) 17
B) 40
C) 25
D) 32

Answer: D

101) Which of the following is an irrational number?

101) _____

A) -1.82
B) $\sqrt{11}$
C) $5.\overline{3}$
D) $\dfrac{17}{3}$

Answer: B

102) Evaluate the expression below for $x = -4$, $y = -3$, and $z = 49$.

$x + y + \sqrt{z}$

102) _____

A) 0
B) -8
C) 14
D) -14

Answer: A

103) Simplify the square root.

$\sqrt{169}$

103) _____

A) 11
B) $\dfrac{169}{2}$
C) 13
D) 14

Answer: C

104) Which number is a prime number?

104) _____

A) 18
B) 27
C) 21
D) 17

Answer: D

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

105) Show how multiplication can be used to check the division problem.

$\dfrac{54}{-9} = -6$

105) _____

Answer: $(-6) \cdot (-9) = 54$

106) Let $A = \left\{-\frac{7}{3}, \sqrt{11}, -9, 0.\overline{4}, \sqrt{8}, 1\right\}$. List all of the natural numbers in set A.   106) _____

Answer: 1

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

107) At the beginning of the 2002 season, 3/5 of the players on one Major League Baseball team had a salary of over 1 million dollars per year. There are 25 players on a major league roster. How many were making over a million dollars?   107) _____

A) 17   B) 15   C) 20   D) 12

Answer: B

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

108) Translate the phrase into an algebraic expression.   108) _____
     The sum of 111 and x

Answer: $111 + x$

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

109) Perform the operations.   109) _____
     $3 \cdot (-5) - 3 \cdot (-8)$

A) 9   B) 192   C) -39   D) 144

Answer: A

110) Use the distributive property to clear the parentheses.   110) _____
     $\frac{3}{2}(4 - 2z)$

A) $6 + 3z$ B) $4 - 3z$ C) $6 - 2z$ D) $6 - 3z$

Answer: D

111) Find the least common multiple for the numbers.   111) _____
     8, 18

A) 72   B) 8   C) 48   D) 6

Answer: A

112) Add the fractions.   112) _____
     $\frac{31}{11} + \frac{29}{11}$

A) $\frac{899}{121}$ B) $\frac{30}{11}$ C) $\frac{60}{11}$ D) $\frac{2}{11}$

Answer: C

113) Perform the indicated operations.

$$\frac{3}{5} + \frac{21}{10} - \frac{1}{6}$$

A) $\frac{38}{15}$

B) $\frac{79}{30}$

C) $\frac{23}{9}$

D) $\frac{151}{300}$

113) _____

Answer: A

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

114) Subtract the fractions.

$$\frac{13}{20} - \frac{3}{20}$$

114) _____

Answer: $\frac{1}{2}$

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

115) Simplify the fraction to lowest terms.

$$\frac{14}{21}$$

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

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

C) $\frac{14}{21}$

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

115) _____

Answer: B

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

116) Evaluate the expression for the given substitution.

$$\frac{x}{2} + 4; \text{ when } x = \frac{8}{3}$$

116) _____

Answer: $\frac{16}{3}$

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

117) Simplify.

$$|-7.5|$$

A) 7.5

B) $-\frac{1}{7.5}$

C) $\frac{1}{7.5}$

D) -7.5

117) _____

Answer: A

19

118) Which property is illustrated by the following statement?

$$5 \cdot \frac{3}{8} = \frac{3}{8} \cdot 5$$

A) Commutative property of addition
B) Distributive property
C) Commutative property of multiplication
D) Associative property of multiplication

Answer: C

119) Multiply the real numbers.

$$9 \cdot (-13)$$

A) 117 B) -4 C) -117 D) -113

Answer: C

120) Simplify - (- 41).

A) 41 B) $\frac{1}{41}$ C) $-\frac{1}{41}$ D) - 41

Answer: A

121) Add the numbers.

$$10 + (-10)$$

A) 20 B) 0 C) -20 D) -100

Answer: B

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

122) Use the order of operations to simplify the expression.

$$\frac{2}{3} \cdot \frac{1}{4} - 26$$

Answer: $-\frac{155}{6}$

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

123) Add the numbers.

$$-\frac{2}{9} + \left(-\frac{7}{18}\right)$$

A) $-\frac{11}{18}$ B) 0 C) $\frac{1}{2}$ D) $-\frac{1}{3}$

Answer: A

124) In one 24-hour period in Toledo, Ohio, the high temperature was 29 degrees and the low temperature was -7 degrees. Find the temperature range for that day (i.e., the difference between the high and low temperatures).

    A) -22 degrees   B) 22 degrees   C) -36 degrees   D) 36 degrees

124) _____

Answer: D

125) Add the numbers.

$$-9 + 15$$

    A) 24   B) 6   C) -24   D) -6

125) _____

Answer: B

126) Divide the real numbers.

$$\frac{-7.83}{-2.9}$$

    A) 27   B) -27   C) -2.7   D) 2.7

126) _____

Answer: D

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

127) Identify the denominator of the fraction.

$$\frac{13}{49}$$

127) _____

Answer: 49

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

128) Simplify the exponential expression.

$$(-2)^6$$

    A) -64 B) -12 C) 64   D) 32

128) _____

Answer: C

129) Divide the real numbers.

$$-21 \div (-3)$$

    A) 7   B) -7   C) 3   D) 63

129) _____

Answer: A

130) Perform the indicated operations.

$$-13 + (-23) + (-18) - 11$$

    A) -19   B) 17   C) -65   D) 3

130) _____

Answer: C

131) Add the integers.

$$-2 + (-4) + (-8) + 9 + 8$$

A) -15   B) 3   C) 31   D) -31

131) _____

Answer: B

132) Tiger Woods won the 2000 U.S. Open golf tournament with a score of 12 strokes under par (-12). His closest competitor, Ernie Els, finished 3 strokes over par ($+3$). What was the margin of victory?

A) 18 strokes   B) 9 strokes   C) 15 strokes   D) 12 strokes

132) _____

Answer: C

133) Which is a false statement?

A) All irrational numbers are real numbers.
B) All rational numbers are real numbers.
C) All natural numbers are rational numbers.
D) All integers are whole numbers.

133) _____

Answer: D

134) Simplify the expression.

$$8^2$$

A) 64   B) 16   C) 256   D) 10

134) _____

Answer: A

135) Simplify.

$$|38.5|$$

A) -38.5   B) $-\dfrac{1}{38.5}$ C) 38.5   D) $\dfrac{1}{38.5}$

135) _____

Answer: C

136) Divide the real numbers.

$$\dfrac{-15}{-3}$$

A) 5   B) 3   C) -5   D) 45

136) _____

Answer: A

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

137) Translate the phrase into a mathematical expression, then simplify the result.

Seven-eighths added to negative three-fourths

137) _____

Answer: $\dfrac{7}{8} + \left(-\dfrac{3}{4}\right); \dfrac{1}{8}$

22

138) Subtract the fractions.   138) _____

$$\frac{17}{6} - \frac{3}{20}$$

A) $\frac{7}{10}$ B) $\frac{161}{60}$ C) -1 D) $\frac{141}{120}$

Answer: B

139) Divide the real numbers.   139) _____

$$\frac{1}{7} \div (-3)$$

A) $\frac{1}{21}$ B) $-\frac{1}{21}$ C) -21 D) $\frac{3}{7}$

Answer: B

140) Divide the real numbers.   140) _____

$$38 \div 0$$

A) 1   B) 38   C) 0   D) undefined

Answer: D

141) Add the fractions.   141) _____

$$\frac{1}{6} + \frac{2}{15}$$

A) $\frac{1}{10}$ B) $\frac{3}{21}$ C) $\frac{1}{45}$ D) $\frac{3}{10}$

Answer: D

142) Divide the fractions.   142) _____

$$6 \div \frac{5}{49}$$

A) $\frac{294}{5}$ B) $\frac{1{,}470}{49}$ C) $\frac{30}{49}$ D) $\frac{30}{294}$

Answer: A

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

143) Which two terms in the expression are like terms?   143) _____

$$5x^2y - 3yx^2 + 7y^2 - 5xy - 7x^2$$

Answer: $5x^2y$ and $-3yx^2$

TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.

144) Determine if the statement is true or false.

$$-\frac{1}{6} \geq -\frac{6}{7}$$

Answer: ● True   False

144) _____

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

145) Divide the mixed numbers.

$$4\frac{5}{8} \div 3\frac{1}{2}$$

A) $4\frac{1}{4}$ B) $1\frac{5}{16}$ C) $1\frac{9}{28}$ D) $2\frac{3}{8}$

Answer: C

145) _____

146) Simplify the exponential expression.

$$-\left(\frac{1}{3}\right)^4$$

A) $-\frac{4}{3}$ B) $\frac{1}{81}$ C) $-\frac{1}{81}$ D) $\frac{1}{3}$

Answer: C

146) _____

147) Find the least common multiple for the numbers.

9, 15

A) 135   B) 45   C) 3   D) 15

Answer: B

147) _____

148) Multiply the real numbers.

$$\frac{3}{5} \cdot \left(-\frac{20}{3}\right)$$

A) $\frac{60}{15}$ B) -4   C) $-\frac{9}{100}$ D) $-\frac{17}{15}$

Answer: B

148) _____

149) Subtract the numbers.

-20 - (-25)

A) 45   B) -45   C) 5   D) 500

Answer: C

149) _____

150) Which fraction is an improper fraction?

    A) $-\dfrac{22}{7}$ B) $-\dfrac{7}{14}$ C) $\dfrac{1}{7}$ D) $\dfrac{7}{22}$

150) _____

Answer: A

151) Simplify.

$$-\left|-\frac{3}{4}\right|$$

    A) $-\dfrac{4}{3}$ B) $\dfrac{4}{3}$ C) $-\dfrac{3}{4}$ D) $\dfrac{3}{4}$

151) _____

Answer: C

152) Which property is illustrated by the following statement?

$$-32 \cdot \frac{1}{-32} = 1$$

    A) Inverse property of multiplication
    B) Associative property of multiplication
    C) Commutative property of addition
    D) Identity property of addition

152) _____

Answer: A

153) Divide the real numbers.

$$\frac{56}{-7}$$

    A) −8   B) −9   C) 49   D) 8

153) _____

Answer: A

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

154) John reads 1/5 of a book on Monday, then reads 1/3 more on Tuesday. What fraction of the book did he read in the two days combined?

154) _____

Answer: 8/15

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

155) Translate the phrase into an algebraic expression.
    The quotient of -188 and the absolute value of y

    A) $\dfrac{-188}{|y|}$ B) $\dfrac{|y|}{-188}$ C) $\dfrac{|-188|}{y}$ D) $\left|\dfrac{-188}{y}\right|$

155) _____

Answer: A

156) Write a proper or improper fraction associated with the shaded region of the figure. 156) _____

A) $\dfrac{4}{9}$ B) $\dfrac{4}{3}$ C) $\dfrac{6}{4}$ D) $1\dfrac{1}{3}$

Answer: B

157) Which pair of numbers are reciprocals? 157) _____

A) $\dfrac{43}{5}$ and $-\dfrac{5}{43}$ B) $\dfrac{43}{5}$ and $\dfrac{5}{43}$ C) $\dfrac{4}{8}$ and $\dfrac{1}{2}$ D) $\dfrac{43}{5}$ and $-\dfrac{43}{5}$

Answer: B

158) Which two terms in the expression are like terms? 158) _____
$$7z + 7z^2 - 18z + 18$$
A) there are no like terms B) $7z$ and $-18z$
C) $-18z$ and 18 D) $7z$ and $7z^2$

Answer: B

159) Perform the operations. 159) _____
$$200 \div 5 \div 8$$
A) 6 B) 5 C) 320 D) 48

Answer: B

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

160) Let $A = \left\{ -\dfrac{3}{2}, \sqrt{3}, -9, 0.\overline{1}, \sqrt{11}, 8 \right\}$. List all of the rational numbers in set A. 160) _____

Answer: $-\dfrac{3}{2}, -9, 0.\overline{1}, 8$

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

161) What is the additive inverse of 3? 161) _____

A) 1 B) -3 C) 0 D) $\dfrac{1}{3}$

Answer: B

26

162) Add the mixed numbers.

$$8\frac{1}{3} + 12\frac{1}{2}$$

A) $\dfrac{125}{6}$ B) $\dfrac{115}{6}$ C) $\dfrac{26}{3}$ D) $\dfrac{101}{5}$

162) _____

Answer: A

163) Add the numbers.

$$-12 + (-8)$$

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

163) _____

Answer: A

164) Use the order of operations to simplify the expression.

$$4(4 - 5)^2 + 6^2$$

A) 40   B) 0   C) 148   D) 52

164) _____

Answer: A

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

165) Use the distributive property to clear the parentheses.

$$- (a - 14n + 18)$$

Answer: $-a + 14n - 18$

165) _____

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

166) Evaluate the expression below for $x = 8$, $y = -3$, and $z = -8$.

$$x + y + |z|$$

A) 3   B) 13   C) 19   D) -3

166) _____

Answer: B

167) Write the number as a product of prime factors.

98

A) 2×49 B) 9×8 C) $3 \times 5 \times 7$ D) $2 \times 7 \times 7$

167) _____

Answer: D

168) Multiply the fractions.

$$11 \times \frac{5}{31}$$

A) $\dfrac{5}{341}$ B) $\dfrac{1,705}{31}$ C) $\dfrac{55}{31}$ D) $\dfrac{55}{341}$

168) _____

Answer: C

169) Simplify the fraction to lowest terms.

$$\frac{80}{60}$$

A) $\frac{1}{3}$ B) $\frac{80}{60}$ C) $\frac{4}{3}$ or $1\frac{1}{3}$ D) $\frac{3}{4}$

169) _____

Answer: C

170) Use the order of operations to simplify the expression.

$$\frac{3}{4} + |7 - 12| \cdot 3$$

A) $\frac{63}{4}$ B) $\frac{69}{4}$ C) $-\frac{57}{4}$ D) $-\frac{51}{4}$

170) _____

Answer: A

171) Add the integers.

13 + (-2)

A) 11   B) -11   C) 15   D) -15

171) _____

Answer: A

172) Multiply the real numbers.

-15 · 3

A) -45   B) -12   C) -41   D) 45

172) _____

Answer: A

173) Add the numbers.

$$-\frac{4}{5} + \left(-\frac{1}{25}\right) + 3$$

A) $\frac{54}{25}$ B) $-\frac{16}{25}$ C) $-\frac{18}{25}$ D) $\frac{56}{25}$

173) _____

Answer: A

174) Find the opposite of $-\frac{5}{42}$.

A) $\frac{42}{5}$ B) $-\frac{42}{5}$ C) $-\frac{5}{42}$ D) $\frac{5}{42}$

174) _____

Answer: D

175) Subtract the numbers.

175) _____

$$\frac{1}{3} - \left(-\frac{2}{9}\right)$$

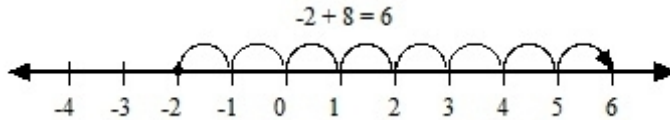A) $\frac{5}{9}$ B) $\frac{2}{27}$ C) $\frac{1}{9}$ D) $-\frac{5}{9}$

Answer: A

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

176) Use a number line to add the numbers.

176) _____

-2 + 8

Answer:

-2 + 8 = 6

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

177) Simplify by clearing parentheses and combining like terms.

177) _____

$11 - 4[2(z + 1) - 5(z - 2)]$

A) $-28z + 43$ B) $12z - 37$ C) $12z + 43$ D) $-28z - 37$

Answer: B

178) Simplify the exponential expression.

178) _____

-6^2

A) -36 B) -12 C) 36 D) 12

Answer: A

179) Perform the operations.

179) _____

$$\frac{6 - 3\left[-5 - (3 - 6)^2\right]}{-2|4 - 7|}$$

A) 1 B) -8 C) -1 D) 8

Answer: B

180) Use the order of operations to simplify the expression.

180) _____

$6 + 3 \div 3 \cdot 2 + 1$

A) 21 B) 15 C) 9 D) 7

Answer: C

181) Which property is illustrated by the following statement?

$6(x - 2) = 6x - 12$

A) Distributive property
B) Commutative property of addition
C) Associative property of multiplication
D) Commutative property of multiplication

Answer: A

181) _____

182) Add the fractions.

$$\frac{7}{6} + \frac{3}{14}$$

A) $\frac{29}{21}$ B) $\frac{20}{21}$ C) $\frac{1}{2}$ D) $\frac{5}{21}$

Answer: A

182) _____

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

183) Perform the indicated operations.

$9 - (23 - 19) - (-19)$

Answer: 24

183) _____

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

184) Perform the operations.

$$\frac{5 \cdot (-6) \div 2 + (4 - 7)^3}{2 \cdot (-1)}$$

A) -42 B) 21 C) -18 D) 7

Answer: B

184) _____

185) Simplify by combining like terms.

$3x - 7 + 7x - 6 - 6x$

A) $-9x - 1$ B) $16x - 1$ C) $4x - 13$ D) $-9x - 13$

Answer: C

185) _____

186) The value of one share of Cuzco, Inc., stock was $29 on October 1. Over the next three days, it lost $1.10, lost $0.75, and gained $0.65. Write a mathematical expression that describes the value of the stock, then simplify the result.

A) $29 + (-1.10) + (-0.75) + (-0.65) = 26.50$
B) $29 + 1.10 + 0.75 + 0.65 = 31.50$
C) $29 + 1.10 + (-0.75) + (-0.65) = 28.70$
D) $29 + (-1.10) + (-0.75) + 0.65 = 27.80$

Answer: D

186) _____

187) Simplify by clearing parentheses and combining like terms.   187) _____

  $5(5y - 4) - 9y$

  A) -20y - 20   B) 16y - 4   C) 16y - 20   D) 12y

Answer: C

188) Simplify the square root.   188) _____

  $$\sqrt{\frac{81}{100}}$$

  A) $\frac{9}{10}$ B) $\frac{9}{100}$ C) $\frac{81}{10}$ D) $\frac{81}{100}$

Answer: A

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

189) Use the associative property of addition to rewrite the expression.   189) _____

  $(50 + 12x) + 3$

Answer: $50 + (12x + 3)$

190) A painting company estimates that it will take $4\frac{1}{2}$ days to paint one building, and   190) _____

  $6\frac{3}{4}$ days to paint the one next door. How many days will it take to paint both?

Answer: $11\frac{1}{4}$ days

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

191) A college sociology course is attended by 32 students on the first day. On the second   191) _____
  day, 2 students that overslept the day before come to class. On the third day, 4 students
  drop the class. Write a mathematical expression to describe the attendance of this class,
  then simplify the result.

  A) $32 + (-2) + (-4) = 26$ B) $32 + 2 + 4 = 38$
  C) $32 + (-2) + 4 = 34$ D) $32 + 2 + (-4) = 30$

Answer: D

192) Evaluate the expression for the given substitution.   192) _____

  $6z - 14$; when $z = 5$

  A) -54   B) 44   C) 114   D) 16

Answer: D

193) Simplify: $3\sqrt{82 - 57} + |2 - 7| + 2 \cdot (-4)$ 193) _____

  A) -48   B) 22   C) 2   D) 12

Answer: D

194) Subtract the fractions. 194) _____

$$\frac{5}{4} - \frac{23}{20}$$

A) $\frac{1}{10}$
B) $\frac{18}{16}$
C) $-\frac{9}{10}$
D) $-\frac{9}{40}$

Answer: A

195) Which of the following expressions is not a variable? 195) _____

A) $|x + 20.4|$
B) Y
C) -3
D) x

Answer: C

196) Which of the following is not true for every real number a and b? 196) _____

A) $a - b = b - a$
B) $a + b = b + a$
C) $a \cdot b = b \cdot a$
D) $a(b + c) = ab + ac$

Answer: A

197) Write the numbers in order from least to greatest. 197) _____

$$\frac{11}{8}, \frac{9}{4}, 2.7, -\frac{2}{3}, -0.9$$

A) $-0.9, -\frac{2}{3}, \frac{11}{8}, \frac{9}{4}, 2.7$
B) $-\frac{2}{3}, -0.9, 2.7, \frac{9}{4}, \frac{11}{8}$

C) $-0.9, -\frac{2}{3}, \frac{9}{4}, \frac{11}{8}, 2.7$
D) $-\frac{2}{3}, -0.9, \frac{11}{8}, \frac{9}{4}, 2.7$

Answer: A

198) Multiply the fractions. 198) _____

$$\frac{11}{30} \times \frac{19}{3}$$

A) $\frac{33}{570}$
B) $\frac{209}{90}$
C) $\frac{30}{33}$
D) $\frac{209}{3}$

Answer: B

199) Use the order of operations to simplify the expression. 199) _____

$$\frac{-3 \cdot 3 + 15}{(15 - 13)^2}$$

A) $\frac{3}{2}$
B) $\frac{3}{8}$
C) $-\frac{27}{2}$
D) -3

Answer: A

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

200) Find the least common multiple for the numbers.
    8, 20, 45

    Answer: 360

200) _____
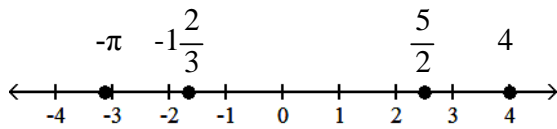
1) C
2) A
3) C
4) A
5) A
6) **a.** 0.18

   b. Yes, $0.18 < 0.20$
7) D
8) FALSE
9) B
10) $(7 \cdot 3)t$
11) C
12) D
13) $\dfrac{9}{5}$

14) 15.4
15) $700 + 2(-350) + 2(-150) = -300$; Valerie lost $300 for the week.
16) C
17) D
18) B
19) A
20) D
21) A
22) D
23) -212
24) A
25) C
26) $-\dfrac{9}{4}$

27) D
28) A
29) $2 \times 2 \times 2 \times 3 \times 3$
30) A
31) $831 + (-40) + 178 + (-20) = 949$
32) C
33) $-\dfrac{38}{3}t + \dfrac{205}{6}$

34) D
35) A
36) C
37) D
38) C
39) D

40)

41) A
42) B
43) B
44) D
45) C
46) B
47) C
48) A
49) $\dfrac{73}{45}$

50) C
51) $5(-2) + 5 = -5$; loss of $5
52) C
53) C
54) B
55) B
56) $\dfrac{5}{3}$

57) -3
58) C
59) A
60) - 0
61) C
62) C
63) $12a^3b^4$

64) D
65) D
66) **a.** 445 calories; **b.** 375 calories; **c.** 535 calories
67) D
68) $26 + (-7) + (-20) + (-16)$;   -17
69) C
70) B
71) $2\dfrac{7}{12}$ feet

72) 22
73) A
74) D
75) B
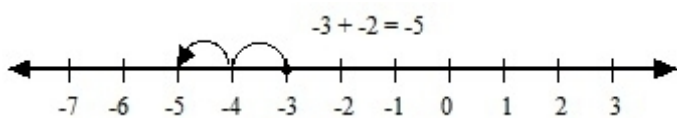76) C
77) A
78) A

79) D
80) B
81) -10
82) [-5 + (-7)] + 8; -4
83) B
84) A
85) D
86) D
87)

$$-3 + -2 = -5$$

88) $7y + 12$
89) A
90) A
91) -5 - (-14);   9
92) $13,000
93) B
94) D
95) $5(11 - t)$
96) D
97) D
98) 0.81
99) B
100) D
101) B
102) A
103) C
104) D
105) $(-6) \cdot (-9) = 54$
106) 1
107) B
108) $111 + x$
109) A
110) D
111) A
112) C
113) A
114) $\dfrac{1}{2}$

115) B
116) $\dfrac{16}{3}$

117) A
118) C

119) C
120) A
121) B
122) $-\dfrac{155}{6}$

123) A
124) D
125) B
126) D
127) 49
128) C
129) A
130) C
131) B
132) C
133) D
134) A
135) C
136) A
137) $\dfrac{7}{8} + \left(-\dfrac{3}{4}\right); \dfrac{1}{8}$

138) B
139) B
140) D
141) D
142) A
143) $5x^2y$ and $-3yx^2$
144) TRUE
145) C
146) C
147) B
148) B
149) C
150) A
151) C
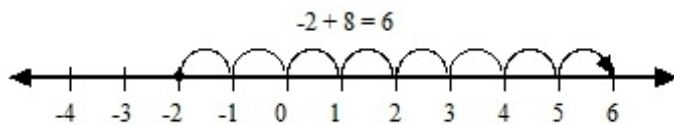152) A
153) A
154) 8/15
155) A
156) B
157) B
158) B
159) B
160) $-\dfrac{3}{2}$, -9, $0.\overline{1}$, 8

161) B

162) A
163) A
164) A
165) -a + 14n - 18
166) B
167) D
168) C
169) C
170) A
171) A
172) A
173) A
174) D
175) A
176)

177) B
178) A
179) B
180) C
181) A
182) A
183) 24
184) B
185) C
186) D
187) C
188) A
189) $50 + (12x + 3)$

190) $11\frac{1}{4}$ days

191) D
192) D
193) D
194) A
195) C
196) A
197) A
198) B
199) A
200) 360