

TEST BANK

FOURTH EDITION



**INTRODUCTORY
& INTERMEDIATE
ALGEBRA**

LIAL
HORNSBY
MCGINNIS

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

Find the value of the exponential expression.

1) 6^4 A) 10 B) 24 C) 1296 D) 5 1) _____

2) 11^2 A) 13 B) 121 C) 242 D) 22 2) _____

3) 3^6 A) 5 B) 36 C) 18 D) 729 3) _____

4) $\left(\frac{2}{7}\right)^2$ A) $\frac{4}{7}$ B) $\frac{4}{49}$ C) $\frac{2}{27}$ D) $\frac{49}{4}$ 4) _____

5) $(0.7)^3$ A) 343 B) 0.343 C) 2.1 D) 0.23333333 5) _____

Simplify.

6) $9 \cdot 19 + 6 \cdot 12$ A) 819 B) 2124 C) 243 D) 2700 6) _____

7) $18.6 \cdot 17.6 + 8.6 \cdot 2.4$ A) 348 B) 711.3 C) 806.3 D) 1169.6 7) _____

8) $240 \div 6 - 2$ A) 236 B) 232 C) 60 D) 38 8) _____

9) $4^2 + 6^2$ A) 100 B) 20 C) 52 D) 40 9) _____

10) $30 + 15 \cdot 17$ A) 765 B) 467 C) 62 D) 285 10) _____

11) $7 \cdot 4 - 8$ A) 28 B) 20 C) 224 D) 36 11) _____

12) $7 \cdot 10 - 3 \cdot 9$ A) 43 B) 1890 C) 603 D) 441 12) _____

13) $83 - 5 \cdot 6 \cdot 2$ A) 106 B) 936 C) 70 D) 23 13) _____

14) $6^3 \div 9 - 7$ A) 214 B) 108 C) 17 D) 27 14) _____

15) $\frac{8}{5} \cdot \frac{1}{7} + \frac{5}{6} \cdot \frac{1}{5}$ A) 15) _____

$$\frac{83}{160}$$

B)
$$\frac{83}{110}$$

C)
$$\frac{83}{210}$$

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

Find the value of the expression.

16) $5[8 + 6(4^2)]$ 16) _____
A) 520 B) 2920 C) 25,600 D) 5120

17) $(5 + 3)[4 + (2 + 5)]$ 17) _____
A) 165 B) 36 C) 88 D) 210

18) $\frac{7(2+5) + 7 \cdot 5}{7(3-1)}$ 18) _____
A) $\frac{7}{10}$ B) $\frac{21}{10}$ C) 6 D) 3

19) $\frac{4(7-6) + 4 \cdot 8}{4(7-4)}$ 19) _____
A) $\frac{1}{2}$ B) $\frac{1}{2}$ C) 1 D) 3

20) $7[8^2 + 8(4 + 5)]$ 20) _____
A) 952 B) 707 C) 128 D) 4536

21) $\frac{7(16-3^2)}{8 \cdot 6 \cdot 11}$ 21) _____
A) $\frac{528}{49}$ B) $\frac{49}{528}$ C) $\frac{49}{48}$ D) $\frac{109}{48}$

22) $\left(\frac{3}{4} + \frac{1}{2}\right) \cdot \frac{7}{10}$ 22) _____
A) $\frac{9}{40}$ B) $\frac{1}{2}$ C) $\frac{7}{2}$ D) $\frac{7}{8}$

23) $\frac{5(2+1) - 7(1+1)}{5(4-2) - 2^3}$ 23) _____
A) $\frac{1}{6}$ B) $\frac{1}{2}$ C) 4 D) $\frac{1}{8}$

24) $0.69 + 3.5(0.35)$ 24) _____
A) 1.3065 B) 1.4665 C) 1.915 D) 1.6165

25) $16.4 \div 0.4(0.3) + (1.1)^2$ 25) _____
A) 12.31 B) 16.71 C) 15.01 D) 13.51

Determine whether the statement is true or false.

26) $2 < 5$ 26) _____
A) True B) False

27) $17 > 15$ 27) _____

A) True

B) False

28) $15 < 12 - 2$

28) _____

A) True

B) False

29) $\frac{2 \cdot (7 + 8) + 2 \cdot 5}{2 \cdot (5 - 1)} < 13$

29) _____

A) True

B) False

30) $7^2 < 8^2 - 5^2$

30) _____

A) False

B) True

31) $(5 + 7)[7 + (2 + 6)] < 153$

31) _____

A) True

B) False

32) $8[8 + (8 - 8)] < 40$

32) _____

A) True

B) False

33) $\frac{2(2 + 9) + 2 \cdot 7}{6(6 + 9)} \leq 13$

33) _____

A) False

B) True

34) $\frac{6(8 - 3) + 7(7 - 1)}{9(8 - 3) - 9(6 - 2)} \geq 3$

34) _____

A) False

B) True

Write the word statement in symbols.

35) Nine is greater than five plus three.

35) _____

A) $9 < 5 + 3$

B) $5 + 3 > 9$

C) $9 + 5 > 3$

D) $9 > 5 + 3$

36) Three is less than or equal to five.

36) _____

A) $3 \geq 5$

B) $3 < 5$

C) $3 > 5$

D) $3 \leq 5$

37) Two is not equal to nine.

37) _____

A) $2 < 9$

B) $2 \geq 9$

C) $2 > 9$

D) $2 \neq 9$

38) Nine is less than or equal to three plus seven.

38) _____

A) $9 < 3 + 7$

B) $9 \leq 3 + 7$

C) $9 + 3 \geq 7$

D) $3 + 7 \leq 9$

39) Two is equal to ten minus eight.

39) _____

A) $2 = 10 - 8$

B) $2 - 10 < 8$

C) $10 < 2 + 8$

D) $10 = 2 - 8$

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

Write the statement in words and decide whether it is true or false.

40) $5 \leq 5$

40) _____

41) $1 \neq 9$

41) _____

42) $6 \geq 2$

42) _____

43) $15 > 5 + 9$

43) _____

44) $14 \leq 6 + 9$

44) _____

45) $\frac{13}{8} \neq \frac{5}{4}$

45) _____

46) $\frac{2}{5} \neq \frac{3}{10}$

46) _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question. Rewrite the statement so the inequality symbol points in the opposite direction.

47) $33 < 46$

47) _____

A) $46 > 33$

B) $46 \geq 33$

C) $33 > 46$

D) $46 < 33$

48) $41 > 33$

48) _____

A) $41 \geq 33$

B) $41 < 33$

C) $33 > 41$

D) $33 < 41$

49) $33 \geq 31$

49) _____

A) $31 \geq 33$

B) $33 > 31$

C) $31 \leq 33$

D) $33 \leq 31$

50) $10 \leq 37$

50) _____

A) $37 > 10$

B) $37 \leq 10$

C) $10 \geq 37$

D) $37 \geq 10$

51) $0.817 \geq 0.722$

51) _____

A) $0.817 < 0.722$

B) $0.722 \geq 0.817$

C) $0.817 \leq 0.722$

D) $0.722 \leq 0.817$

52) $0.218 < 0.295$

52) _____

A) $0.295 > 0.218$

B) $0.218 \geq 0.295$

C) $0.295 \leq 0.218$

D) $0.218 > 0.295$

Answer the question.

53) The table shows the number of pupils per teacher in selected states.

53) _____

State	Pupils per Teacher
Alaska	16.7
Texas	14.7
California	20.5
Wyoming	12.5
Maine	12.3
Idaho	17.8
Missouri	13.9

Which states have a figure greater than 14.7?

A) Alaska, Texas, California

B) Alaska, California, Wyoming, Idaho

C) Alaska, California, Idaho

D) Alaska, Texas, California, Idaho

54) The table shows the number of pupils per teacher in selected states.

State	Pupils per Teacher
Alaska	16.7
Texas	14.7
California	20.5
Wyoming	12.5
Maine	12.3
Idaho	17.8
Missouri	13.9

Which states have a figure greater than 12.5?

- A) Alaska, Texas, California, Wyoming, Idaho, Missouri
- B) Alaska, Texas, California, Idaho, Missouri
- C) Maine
- D) Wyoming, Maine

55) The table shows the number of pupils per teacher in selected states.

55) _____

State	Pupils per Teacher
Alaska	16.7
Texas	14.7
California	20.5
Wyoming	12.5
Maine	12.3
Idaho	17.8
Missouri	13.9

Which states have a figure greater than 16.7?

- A) Alaska, California, Idaho
- B) California, Idaho
- C) Idaho
- D) Alaska, Texas, Wyoming, Maine, Missouri

56) The table shows the number of pupils per teacher in selected states.

56) _____

State	Pupils per Teacher
Alaska	16.7
Texas	14.7
California	20.5
Wyoming	12.5
Maine	12.3
Idaho	17.8
Missouri	13.9

Which states have a figure that is at most 14.7?

- A) Alaska, Texas, California, Idaho
- B) Texas, Wyoming, Maine, Missouri
- C) Alaska, California, Idaho
- D) Wyoming, Maine, Missouri

57) The table shows the number of pupils per teacher in selected states.

State	Pupils per Teacher
Alaska	16.7
Texas	14.7
California	20.5
Wyoming	12.5
Maine	12.3
Idaho	17.8
Missouri	13.9

Which states have a figure that is at most 12.5?

- A) Alaska, Texas, California, Wyoming, Idaho, Missouri
- B) Maine
- C) Alaska, Texas, California, Idaho, Missouri
- D) Wyoming, Maine

58) The table shows the number of pupils per teacher in selected states.

58) _____

State	Pupils per Teacher
Alaska	16.7
Texas	14.7
California	20.5
Wyoming	12.5
Maine	12.3
Idaho	17.8
Missouri	13.9

Which states have a figure that is at most 16.7?

- A) California, Idaho
- B) Alaska, Texas, Wyoming, Maine, Missouri
- C) Texas, Wyoming, Maine, Missouri
- D) Alaska, California, Idaho

59) The table shows the number of pupils per teacher in selected states.

59) _____

State	Pupils per Teacher
Alaska	16.7
Texas	14.7
California	20.5
Wyoming	12.5
Maine	12.3
Idaho	17.8
Missouri	13.9

For which states are the values not less than 14.7?

- A) Alaska, Texas, California, Idaho
- B) Texas, Wyoming, Maine, Missouri
- C) Alaska, California, Idaho
- D) Wyoming, Maine, Missouri

60) The table shows the number of pupils per teacher in selected states.

State	Pupils per Teacher
Alaska	16.7
Texas	14.7
California	20.5
Wyoming	12.5
Maine	12.3
Idaho	17.8
Missouri	13.9

For which states are the values not less than 12.5?

- A) Alaska, Texas, California, Idaho, Missouri
- B) Maine
- C) Alaska, Texas, California, Wyoming, Idaho, Missouri
- D) Wyoming, Maine

61) The table shows the number of pupils per teacher in selected states.

61) _____

State	Pupils per Teacher
Alaska	16.7
Texas	14.7
California	20.5
Wyoming	12.5
Maine	12.3
Idaho	17.8
Missouri	13.9

For which states are the values not less than 16.7?

- A) Alaska, California, Idaho
- B) Alaska, Texas, Wyoming, Maine, Missouri
- C) Texas, Wyoming, Maine, Missouri
- D) California, Idaho

Find the numerical value of the expression for a) $x = 4$ and b) $x = 18$.

62) $x + 8$

- A) a) 32 b) 144 B) a) 26 b) 12 C) a) 4 b) 10 D) a) 12 b) 26

62) _____

63) $x - 2$

- A) a) 6 b) 20 B) a) 2 b) 16 C) a) 8 b) 36 D) a) 16 b) 2

63) _____

64) $9x$

- A) a) 162 b) 36 B) a) 27 b) 13 C) a) 36 b) 162 D) a) 13 b) 27

64) _____

65) $\frac{x + 5}{5}$

- A) a) 4 b) 18 B) a) $\frac{5}{9}$ b) $\frac{5}{23}$ C) a) $\frac{9}{5}$ b) $\frac{23}{5}$ D) a) $\frac{23}{5}$ b) $\frac{9}{5}$

65) _____

66) $\frac{5x - 8}{7x}$ 66) _____
 A) $\frac{3}{7}$ $\frac{41}{63}$ B) $\frac{41}{63}$ $\frac{3}{7}$ C) $\frac{2}{21}$ $\frac{41}{63}$ D) $\frac{2}{9}$ $\frac{7}{9}$
 a) b) a) b) a) b) a) b)

67) $\frac{x + 2}{x - 1}$ 67) _____
 A) $\frac{20}{17}$ B) $\frac{16}{19}$ $\frac{2}{5}$ C) $\frac{20}{17}$ D) $\frac{2}{5}$ $\frac{16}{19}$
 a) 2 b) a) b) a) b) a) b)

68) $6x^2 + 4x$ 68) _____
 A) a) 112 b) 2016 B) a) 64 b) 288 C) a) 40 b) 180 D) a) 80 b) 1872

69) $\frac{6.037x}{1.7}$ 69) _____
 (Round to the nearest thousandth.)
 A) a) 41.052 b) 184.732 B) a) 0.390 b) 1.754
 C) a) 14.205 b) 63.921 D) a) 49.716 b) 28.409

70) $\frac{0.27x}{0.77}$ 70) _____
 (Round to the nearest thousandth.)
 A) a) 5.610 b) 113.610 B) a) 1.403 b) 6.312
 C) a) 0.225 b) 1.010 D) a) 76.960 b) 1558.442

Evaluate the expression for the given values. Expression your answer as a fraction unless otherwise indicated.

71) $5x + 7y + 8$; $x = 0, y = 9$ 71) _____
 A) 53 B) 71 C) 76 D) 15

72) $\frac{3x}{y} + y^2$ $x = 3, y = 10$ 72) _____
 A) $\frac{1009}{10}$ B) $\frac{29}{10}$ C) $\frac{109}{10}$ D) 19

73) $\frac{15x - 7y}{10}$ $x = 10, y = 4$ 73) _____
 A) $\frac{61}{5}$ B) $\frac{143}{10}$ C) 1 D) $\frac{89}{5}$

74) $\frac{x + y}{7x - 7}$ $x = 2, y = 10$ 74) _____
 A) $\frac{2}{7}$ B) $\frac{12}{47}$ C) $\frac{12}{7}$ D) $\frac{6}{7}$

75) $\frac{5x + 15y}{5}$ $x = 7, y = 8$ 75) _____
 A) 155 B) 31 C) 17 D) 29

76)

$$\frac{15x - 6y}{x + 6} \quad 76)$$

$$x = 9, y = 10$$

A) $\frac{32}{5}$

B) 5

C) $\frac{75}{16}$

D) 6

77) $(x + 3y)^2 \quad x = 2, y = 4$

A) 196

B) 25

C) 14

D) 28

77) _____

78) $\frac{x(y + 3)}{2(x - y)}$

$x = 10, y = 9$

A) 1

B) 60

C) 3

D) 54

78) _____

79) $2x^2 + 10y \quad x = 6, y = 4$

A) 368

B) 92

C) 184

D) 112

79) _____

80) $0.23x^2 + 0.947y^2 \quad x = 8, y = 6$ Round to the nearest tenth.

A) 35.7

B) 537.8

C) 68.9

D) 48.8

80) _____

State the phrase as a mathematical expression. Use x to represent the variable.

81) Three times a number

A) $3x$

B) $3 - x$

C) $3 + x$

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

81) _____

82) A number increased by four

A) 4

B) $x + 4$

C) $x - 4$

D) $4x$

82) _____

83) A number multiplied by seven hundred fifty-seven

A) $757x$

B) $757 + x$

C) $\frac{757}{x}$

D) $757 - x$

83) _____

84) A number minus six hundred eight

A) $x - 608$

B) 608

C) $608x$

D) $x + 608$

84) _____

85) The difference between ten times a number and two

A) $2 - 10x$

B) $10x - 2$

C) $10 - x + 2$

D) $2 + 10x$

85) _____

86) The quotient of a number and two

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

B) $2 - x$

C) $2 + x$

D) $2x$

86) _____

87) Four divided by a number

A) $4 - x$

B) $4x$

C) $4 + x$

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

87) _____

88) The product of three and nine more than a number

A) $(3 + 9)x$

B) $3(x + 9)$

C) $3 + 9 \cdot x$

D) $3 \cdot 9 + x$

88) _____

89) 316 divided by a number

A) $316 - x$

B) $316x$

C) $316 + x$

D)

89) _____

- 90) Five times a number, added to 5
A) $5 \cdot 5 + x$ B) $5x$ C) $5x + 5$ D) $5(x + 5)$ 90) _____

Decide if the given number is a solution to the given equation.

- 91) $p + 8 = 20$; 12
A) No B) Yes 91) _____
- 92) $p - 6 = 9$; 15
A) Yes B) No 92) _____
- 93) $2m + 6 = 26$; 9
A) No B) Yes 93) _____
- 94) $4y + 3(y - 6) = 45$; 9
A) Yes B) No 94) _____
- 95) $2p + 8p - 4 = 16$; 2
A) No B) Yes 95) _____
- 96) $13x^2 + 6 = 110$; 4
A) No B) Yes 96) _____
- 97) $\frac{x+5}{4-x} = \frac{10}{3}; \frac{25}{13}$
A) No B) Yes 97) _____
- 98) $\frac{x+10}{x-4} = \frac{3}{8}; \frac{92}{5}$
A) No B) Yes 98) _____
- 99) $6r^2 + 5 = 78.5$; 3.5
A) No B) Yes 99) _____
- 100) $5z^2 - 7 = 487.2$; 9.8
A) No B) Yes 100) _____

Change the word statement to an equation. Use x as the variable.

- 101) A number minus 2 equals 2.
A) $2 - x = 2$ B) $x - 2 = 2$ C) $x = 2 - 2$ 101) _____
- 102) 2 times a number equals 10 less than 3 times the number.
A) $2x = 10 - 3$ B) $2x = 10 - 3x$ C) $2x = 3x - 10$ 102) _____
- 103) Twice a number less 6 equals 8.
A) $2x - 6 = 8$ B) $2(x - 6) = 8$ C) $6 - 2x = 8$ 103) _____
- 104) The sum of twice a number and 3 is 36.
A) $2x + 3 = 36$ B) $6x = 36x$ C) $6x = 36$ 104) _____

105) $\frac{10}{11}$ of a number plus 2 equals 12. 105) _____
 A) $\frac{10}{11}(x + 2) = 12$ B) $\frac{10}{11}x = 2 + 12$ C) $\frac{10}{11}x + 2 = 12$

106) 1 divided by a number equals $\frac{1}{7}$ times that number." 106) _____
 A) $\frac{1}{x} = 7x$ B) $\frac{x}{1} = \frac{x}{7}$ C) $\frac{1}{x} = \frac{1}{7}x$

107) When 2 times a number is subtracted from 7 times the number, the result is 45. 107) _____
 A) $2x + 9x = 45$ B) $7x - 2x = 45$ C) $2(x - 7) = 45x$ D) $2x(7 - x) = 45$

108) The sum of two-thirds a number and 21 is 84. 108) _____
 A) $\frac{2}{3}x + 84 = 21$ B) $\frac{2}{3}x + 21 = 84$ C) $\frac{2}{3}x - 21 = 84$ D) $\frac{2}{3}x \cdot 21 = 84$

Decide whether the problem is an equation or an expression.

109) $7(3x + 6) = 3(2x - 7)$ 109) _____
 A) Expression B) Equation

110) $6(2x + 5) - 7(7x - 7)$ 110) _____
 A) Expression B) Equation

111) $\frac{8x + 3}{9} = \frac{8x}{9} - 8$ 111) _____
 A) Equation B) Expression

112) $\frac{9x - 3}{x + 3} - \frac{x}{8} + 7$ 112) _____
 A) Expression B) Equation

113) $\frac{6x + 8}{9}$
 $5x + 6 =$ 113) _____
 A) Expression B) Equation

114) $\frac{7x + 7}{6}$
 $6(8 - x) +$ 114) _____
 A) Equation B) Expression

115) $x + y = 1$ 115) _____
 A) Expression B) Equation

116) $x + y - 7$ 116) _____
 A) Expression B) Equation

Answer the question.

117) Which phrase correctly translates the expression $12 - x$? 117) _____

- A) x less than 12
C) x minus 12

- B) 12 subtracted from x
D) x take away 12

- 118) Which one of the following is the correct method for evaluating the expression $2x^2 - 4$ for $x = 6$? 118) _____
 A) $2 \cdot 6^2 - 4 = (12 - 4)^2 = 8 = 64$
 B) $2 \cdot 6^2 - 4 = 12^2 - 4 = 144 - 4 = 140$
 C) $2 \cdot 6^2 - 4 = 2 \cdot 36 - 4 = 72 - 4 = 68$
 D) $2 \cdot 6^2 - 4 = 2 \cdot 2^2 = 2 \cdot 4 = 8$
- 119) According to the rules for order of operations, the first steps in evaluating the expression $57 - 5x^3$ for $x = 2$ are to substitute 2 for x and then _____. 119) _____
 A) multiply 5 by 2
 B) subtract 57 from 5
 C) find the cube of 2
 D) subtract 5 from 57
- 120) What value for x makes the expression $1 + 8x$ equal to 9? 120) _____
 A) 0
 B) 1
 C) 4
 D) 2
- 121) What value for x makes the expression $20 - x$ equal to 10? 121) _____
 A) 10
 B) 11
 C) 30
 D) 20
- 122) Which pair of values of x and y makes $3x + y$ equal 7? 122) _____
 A) $x = 2$ and $y = 3$
 B) $x = 1$ and $y = 2$
 C) $x = 3$ and $y = 2$
 D) $x = 2$ and $y = 1$
- 123) Which pair of values of x and y makes $x - 7y$ equal 1? 123) _____
 A) $x = 1$ and $y = 8$
 B) $x = 6$ and $y = 1$
 C) $x = 8$ and $y = 1$
 D) $x = 1$ and $y = 6$
- 124) In the equation $2x + y = 12$, the value of x is 4. What is the corresponding value of y ? 124) _____
 A) $y = 10$
 B) $y = 6$
 C) $y = 2$
 D) $y = 4$

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

Give a number that satisfies the given condition.

- 125) An integer greater than -3.3 and less than -2.3 125) _____
- 126) A whole number greater than 3.5 126) _____
- 127) A whole number less than 3.5 127) _____

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

List all numbers from the set that are of the type indicated.

- 128) $\left\{0, \sqrt{5}, -17, \frac{3}{4}, -1\frac{1}{3}, 2.9, 3\right\}$ 128) _____
 Integers
 A) 0, -17 , 3
 B) 14, $\sqrt{5}$
 C) 14
 D) 14, -17
- 129) $\left\{1, \sqrt{7}, -2, 0, \frac{2}{9}, -4\frac{1}{2}, 5.8\right\}$ 129) _____
 Whole numbers
 A) 1, -2
 B) 1
 C) 1, -2 , 0
 D) 1, 0
- 130) $\left\{\sqrt{8}, -20, 0, \frac{3}{8}, -2\frac{2}{3}, 1.2, 3\right\}$ 130) _____
 Natural numbers

A) 0, 3

B) 0

C) -20, 0

D) 3

131) $\{9, \sqrt{5}, -23, 0\}$

Real numbers

A) 9, -23, 0

B) $9, \sqrt{5}, -23, 0$

C) 9, 0

D) 9

131) _____

132) $\{7, \sqrt{8}, -11, 0, 0.42\}$

Rational numbers

A) $\sqrt{8}, 0.42$

B) 7, -11, 0, 0.42

C) $\sqrt{8}$

D) 7, 0

132) _____

133) $\{12, \sqrt{5}, -4, 0, 0.86\}$

Irrational numbers

A) $\sqrt{5}, -4$

B) $\sqrt{5}, 0.86$

C) $\sqrt{5}$

D) $\sqrt{5}, 0, 0.86$

133) _____

Use an integer to express the number.

134) The stock market gained 11 points on Monday.

A) 11

B) -11

134) _____

135) During one year, 25 employees quit their jobs at Newline Manufacturing Company.

A) 25

B) -25

135) _____

136) A football team gained 20 yards on one play.

A) 20

B) -20

136) _____

137) In one state, the lowest point is 2901 feet below sea level.

A) 2901

B) -2901

137) _____

138) One country exported \$ 66,700,000 more than it imported, giving it a positive trade balance.

A) 66,700,000

B) -66,700,000

138) _____

139) Sales at Andrea's Formal Wear Shop were \$ 1746 less this week than the sales last week.

A) -1746

B) 1746

139) _____

140) Mr. Voss increased his speed by 17 miles per hour.

A) 17

B) -17

140) _____

141) On a cloudy day, the water temperature in the swimming pool drops 7 degrees.

A) 7

B) -7

141) _____

142) This year corn production decreased 6,000 pounds from last year on Steve's farm.

A) 6,000

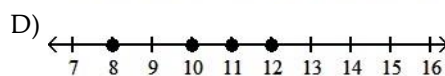
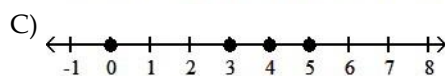
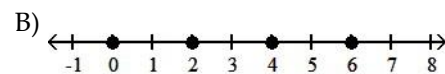
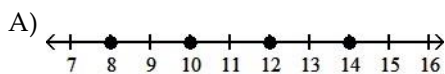
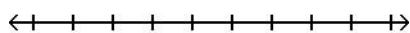
B) -6,000

142) _____

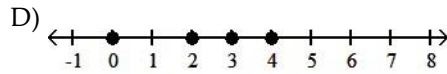
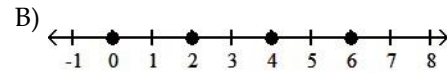
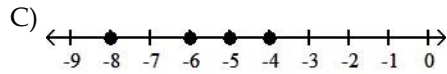
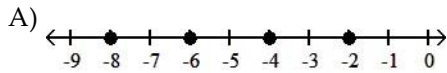
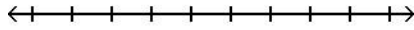
Graph the numbers on a number line.

143) 0, 2, 4, 6

143) _____

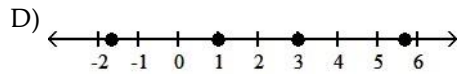
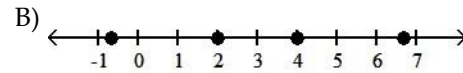
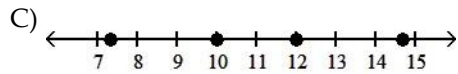
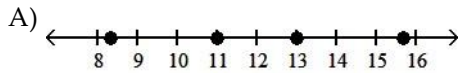
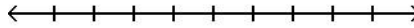


144) -8, -6, -4, -2



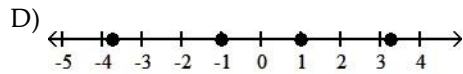
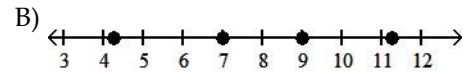
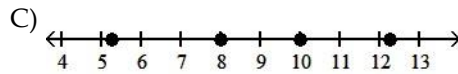
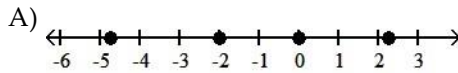
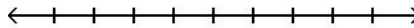
144) _____

145) $\frac{2}{3}$, $\frac{2}{3}$
-1, 1, 3, 5



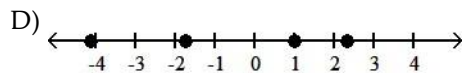
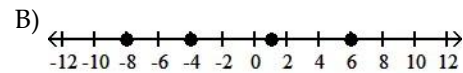
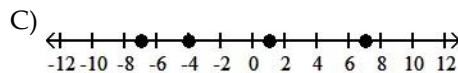
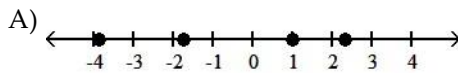
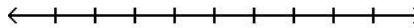
145) _____

146) $\frac{3}{4}$, $\frac{1}{4}$
-4, -2, 0, 2



146) _____

147) $\frac{7}{8}$, $\frac{7}{4}$, $\frac{7}{3}$
-3, -, 1,



147) _____

Select the lesser of the two given numbers.

148) -17, -15

A) -15

B) -17

148) _____

149) $\frac{4}{7}$, $\frac{1}{2}$

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

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

149) _____

150) -121, 2

A) -121

B) 2

150) _____

151) 2, $|-25|$
A) $|-25|$

B) 2

151) _____

152) $|-3|$, $|-10|$
A) $|-3|$

B) $|-10|$

152) _____

153) $-|-4|$, $-|-10|$
A) $-|-4|$

B) $-|-10|$

153) _____

154) $|7 - 1|$, $|5 - 3|$
A) $|7 - 1|$

B) $|5 - 3|$

154) _____

Decide if the statement is true or false.

155) $-(-23) < -23$
A) True

B) False

155) _____

156) $-(-26) > -28$
A) True

B) False

156) _____

157) $-18 > -10$
A) True

B) False

157) _____

158) $-14 \leq -3$
A) False

B) True

158) _____

159) $-29 \leq -(-10)$
A) False

B) True

159) _____

160) $-10 \geq -(-26)$
A) True

B) False

160) _____

161) $|-5| < |-8|$
A) False

B) True

161) _____

162) $|-13| \geq |-15|$
A) False

B) True

162) _____

Find the opposite (additive inverse) of the number.

163) 17

A) $\frac{1}{17}$

B) 0

C) 17

D) -17

163) _____

164) -12

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

B) -12

C) 12

D) 0

164) _____

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

A) 0

B) 20

C) -20

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

165) _____

166) $\frac{1}{24}$ 166) _____
 A) -24 B) 0 C) 24 D) $\frac{1}{24}$

167) $\frac{5}{11}$ 167) _____
 A) $\frac{5}{11}$ B) $\frac{5}{11}$ C) $\frac{11}{5}$ D) $\frac{11}{5}$

Simplify.

168) $|-5|$ 168) _____
 A) 10 B) -5 C) 0 D) 5

169) $|4|$ 169) _____
 A) 0 B) 8 C) 4 D) -4

170) $|-6|$ 170) _____
 A) -6 B) 12 C) 6 D) 0

171) $-|-18|$ 171) _____
 A) -18 B) 18 C) 36 D) 0

172) $|15 - 8|$ 172) _____
 A) 7 B) -7 C) 14 D) 0

173) $\left| -\frac{7}{8} \right|$ 173) _____
 A) $\frac{7}{8}$ B) $\frac{8}{7}$ C) $\frac{8}{7}$ D) $\frac{7}{8}$

174) $\left| \frac{4}{5} \right|$ 174) _____
 A) $\frac{5}{4}$ B) $\frac{4}{5}$ C) $\frac{5}{4}$ D) $\frac{4}{5}$

Refer to the table to answer the question.

Production Category	Change 2008-2009	Change 2009-2010
Public Relations	3.5	4.2
Training	1.7	2.8
Sales	-4.3	1.6
Catalog	2.3	-1.1

175) Which category and year shows the largest increase? 175) _____
 A) Public Relations, 2009-2010 B) Catalog, 2008-2009
 C) Public Relations, 2008-2009 D) Sales, 2008-2009

176) Which category and year represents the least change? 176) _____
 A) Catalog 2009-2010 B) Sales, 2009-2010

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

Provide an appropriate response.

- 177) Is the integer 0 positive or negative? Explain. 177) _____
- 178) How is the order of operations applied to integers? 178) _____
- 179) What is the additive inverse of 0? 179) _____
- 180) How can you rewrite a subtraction of integers problem to make it easier to solve? Give an example. 180) _____
- 181) Explain what happens when an integer is multiplied by 1, -1, and 0. 181) _____
- 182) A whole number less than 9.3. 182) _____
- 183) Fill in the blanks with the correct numbers. 183) _____
- The opposite of -5 is _____.
- The absolute value of -5 is _____.
- The opposite of the absolute value of -5 is _____.
- The absolute value of the opposite of -5 is _____.

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

- 184) Give one number between -8 and 8 that is a negative real number but not an integer. 184) _____
- A) Not possible B) 1 C) -2.996 D) 2.996
- 185) Give one number between -8 and 8 that is a negative real number but not an integer. 185) _____
- A) Not possible B) 4 C) -5.5677644 D) 5.56776436
- 186) Give one number between -10 and 10 that is a real number but not not an integer. 186) _____
- A) $-\sqrt{25}$ B) 3.46410162 C) Not possible D) 2

Find the sum.

- 187) $9 + (-4)$ 187) _____
- A) 5 B) -5 C) -13 D) 13
- 188) $-10 + 3$ 188) _____
- A) -7 B) 7 C) 13 D) -13
- 189) $-21 + (-14)$ 189) _____
- A) -35 B) 35 C) 7 D) -7
- 190) $-10.7 + (-23.7)$ 190) _____
- A) 34.4 B) 13 C) -34.4 D) -13
- 191) $-606 + 510$ 191) _____
- A) 1116 B) -96 C) -1116 D) 96
- 192) $11 + [(-18) + (-14)]$ 192) _____
- A) 7 B) 43 C) 15 D) -21

- 193) $9 + [19 + (-15)]$ 193) _____
 A) 5 B) 13 C) -25 D) 43
- 194) $-5 + [25 + (-25)]$ 194) _____
 A) -5 B) 55 C) 45 D) 5
- 195) $3.1 + [(-4.0) + (-3.1)]$ 195) _____
 A) 4 B) 2.2 C) -4 D) 10.2
- 196) $-5.4 + [(-6.1) + (-3.5)]$ 196) _____
 A) -15 B) -4.2 C) 8 D) 2.8
- 197) $[-10 + (-1)] + [(-8) + (-22)]$ 197) _____
 A) -5 B) -19 C) -21 D) -41
- 198) $[7 + (-14)] + [16 + (-6)]$ 198) _____
 A) 3 B) -17 C) 43 D) -29
- 199) $-22.2 + [19.1 + (-12.2)]$ 199) _____
 A) -15.3 B) 29.1 C) 53.5 D) 9.1
- 200) $\frac{3}{4} + \left(-\frac{1}{8}\right)$ 200) _____
 A) $\frac{5}{8}$ B) $\frac{5}{32}$ C) $\frac{1}{2}$ D) $\frac{5}{4}$
- 201) $\frac{1}{16} + \frac{3}{4}$ 201) _____
 A) $\frac{11}{4}$ B) $\frac{11}{64}$ C) $\frac{11}{16}$ D) $\frac{1}{6}$
- 202) $\frac{3}{8} + \left(-7\frac{5}{8}\right)$ 202) _____
 A) $\frac{3}{4}$ B) $\frac{3}{22}$ C) $\frac{2}{7}$ D) $\frac{3}{7}$
- 203) $\frac{6}{7} + 13\frac{1}{7}$ 203) _____
 A) $\frac{1}{7}$ B) $\frac{2}{18}$ C) $\frac{2}{7}$ D) $\frac{2}{17}$

Perform the indicated operations to decide whether the statement is true or false.

- 204) $-9 + 16 = 16 + (-9)$ 204) _____
 A) True B) False
- 205) $4 + \left(-\frac{16}{11}\right) = -\frac{16}{11} + 4$ 205) _____
 A) True B) False
- 206) $|-2 + 6| = -2 + (-6)$ 206) _____

A) True

B) False

207) $-1 + [-3 + 2] = [(-1) + (-3)] + 2$

207) _____

A) True

B) False

Write a numerical expression for the phrase and simplify it.

208) The sum of -3 and 2 and 10

208) _____

A) $3 + 2 + 10$;
15

B) $2 + 10 - 3$;
-5

C) $-3 - 2 - 10$;
-15

D) $-3 + 2 + 10$;
9

209) The sum of -9 and -7, increased by -15

209) _____

A) $[9 + 7] + 15$; 31

B) $[(-9) + (-7)] + (-15)$; -31

C) $[(-9) + (-7)] + (-15)$; -13

D) $[(-9) + (-7)] + 15$; -1

210) 3 added to the sum of -14 and 6

210) _____

A) $3 + [(-14) + 6]$; -5

B) $3 + 6 - 14$; 17

C) $-3 - 14 - 6$; -23

D) $3 + 14 + 6$; 23

211) 5 more than the sum of -3 and 4

211) _____

A) $4 + [5 - 3]$; 2

B) $[3 + 4] + 5$;
12

C) $-3 - [4 - 5]$;
-12

D) $[-3 + 4] + 5$;
6

212) -11 added to the sum of -15 and 14

212) _____

A) $-11 + 14 - 15$; 40

B) $-11 + 15 + 14$; 18

C) $11 - 15 - 14$; -18

D) $-11 + [(-15) + 14]$; -12

213) $\frac{3}{8}$ more than the sum of $-\frac{7}{8}$ and $\frac{1}{8}$

213) _____

A) $\left[\frac{7}{8} + \frac{1}{8}\right] + \frac{3}{8}$; $\frac{11}{8}$

B) $\left[-\frac{3}{8} + \frac{1}{8}\right] + \frac{7}{8}$; $\frac{5}{8}$

C) $\left[\frac{7}{8} + \left(-\frac{1}{8}\right)\right] + \frac{3}{8}$; $\frac{9}{8}$

D) $\left[-\frac{7}{8} + \frac{1}{8}\right] + \frac{3}{8}$; $-\frac{3}{8}$

214) 0.35 added to the sum of 2.66 and -9.59

214) _____

A) $[2.66 + 9.59] + 0.35$; 12.6

B) $2.66 + [(-9.59) + 0.35]$; 6.58

C) $[2.66 + (-9.59)] + 0.35$; -6.58

D) $[2.66 + 0.35] + (9.59)$; -12.6

Solve the problem.

215) The stock market gained 44 points on Tuesday and lost 34 points on Wednesday. It had closed on Monday at 2700 points. Where did the market close on Wednesday?

215) _____

A) 2622 points

B) 2778 points

C) 2710 points

D) 2690 points

216) During one year 15 new employees began work at Daniel's Manufacturing Company and 34 employees left. At the beginning of the year there were 259 employees. What was the number of employees at the end of the year?

216) _____

A) 308 employees

B) 210 employees

C) 274 employees

D) 240 employees

217) A football team gained 31 yards on one play, lost 32 yards on another, and gained 24 yards on the last play of the first half. They had already gained 344 yards during the half. What was the total yardage gain for the first half?

217) _____

A) 321 yards

B) 367 yards

C) 399 yards

D) 431 yards

- 218) Annica owes \$759.19 on her charge card. She returns for credit items costing \$39.08 and \$16.20. She makes a purchase for \$44.06 and additional purchases of \$30.55, \$105.08, and \$135.87. She then makes a payment of \$787.31. Find the amount she now owes. 218) _____
 A) \$ 232.16 B) \$ 1286.22 C) \$ 342.72 D) \$ 1175.66
- 219) A machinist has flat metal plate that is 8.509 cm thick. He laminates the metal plate with four more layers that are 3.068 cm, 3.616 cm, 4.514 cm, and 4.357 cm thick. He then grinds off 3.699 cm from the top of the plate, then 2.488 cm more, and finally another 7.927 cm. Find the new thickness of the plate. 219) _____
 A) 9.950 cm B) 7.068 cm C) 13.649 cm D) 22.324 cm
- 220) In four rounds of a card game, you get scores of 1, 7, 2, and -3. What is your final score? 220) _____
 A) -13 B) 13 C) -7 D) 7
- 221) Your bank account has \$ 63 in it when you write checks for \$52, \$19, and \$ 22. You then deposit \$ 51 and \$ 58. How much is in the account? Are you overdrawn? 221) _____
 A) -\$47, yes B) \$ 47, no C) \$ 101, no D) \$ 79, no
- 222) A bike road race starts at an elevation of 750 feet and passes through 5 stages where the elevation changes by 296 feet, 557 feet, 409 feet, 320 feet, and -366 feet. At what elevation does the race end? 222) _____
 A) -2698 feet B) 2698 feet C) 1966 feet D) -149 feet
- 223) The ocean surface is at 0 feet elevation. A diver is underwater at an elevation of -223 feet near a rock formation. In this area, the ocean floor has an elevation of -364 feet. The rock formation rises to a peak 172 feet above the ocean floor. How many feet below the top of the rock formation is the diver? 223) _____
 A) 192 feet B) 51 feet C) 31 feet D) 141 feet

Answer the question or complete the sentence to make a true statement.

- 224) In order to add -7 and 3, I should begin by finding the _____ of the _____ of -7 and 3. 224) _____
 A) Sum, opposites B) Sum, absolute values
 C) Difference, absolute values D) Difference, additive inverses
- 225) In order to add -7 and -6, I should begin by finding the _____ of the _____ of -7 and -6. 225) _____
 A) Additive inverses, opposites B) Difference, absolute values
 C) Sum, absolute values D) Opposite, additive inverses
- 226) When the absolute value of a positive number equals the absolute value of a negative number, the sum of the positive and the negative number is _____. 226) _____
 A) Positive B) Zero C) Negative D) Not known
- 227) According to the rules for the order of operations, what should be the first step when simplifying the expression $[12 + (-3 + 4)] + (-4)$? 227) _____
 A) Find the sum of 12 and -3 B) Find the sum of 12 and -4
 C) Find the sum of -3 and 4 D) Find the sum of 4 and -4
- 228) According to the rules for the order of operations, what should be the first step when simplifying the expression $[-6 + (-10 + 7)] + (-4 + 6)$? 228) _____

- A) Find the sum of -6 and -10
 C) Find the sum of 7 and -4

- B) Find the sum of -6 and -4
 D) Find the sum of -10 and 7

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

229) Under what condition will the sum of a positive number and a negative number be negative? 229) _____

230) Under what condition will the sum of a positive number and a negative number be positive? 230) _____

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

231) The sum of two positive numbers will always be a _____ number. 231) _____
 A) Positive B) Negative

232) The sum of a negative number and 0 will always be a _____ number. 232) _____
 A) Positive B) Negative

233) The sum of three negative numbers will always be a _____ number. 233) _____
 A) Negative B) Positive

Find the difference.

234) $2 - 4$ 234) _____
 A) 2 B) -2 C) 6 D) -6

235) $-4 - 15$ 235) _____
 A) 19 B) 11 C) -19 D) -11

236) $-12 - (-4)$ 236) _____
 A) 8 B) -8 C) -16 D) 16

237) $14 - (-9)$ 237) _____
 A) 5 B) -5 C) 23 D) -23

238) $-44 - 44$ 238) _____
 A) 0 B) -88 C) 88 D) -132

239) $12 - (14 - 8)$ 239) _____
 A) 34 B) 6 C) 18 D) -10

240) $(9 - 1) - (-9 + 8)$ 240) _____
 A) -9 B) -7 C) 11 D) 9

241) $(16 + 20) - (14 - 18)$ 241) _____
 A) -4 B) 28 C) 40 D) -28

242) $-2 - [(17 - 1) - (-7 + 2)]$ 242) _____
 A) -13 B) -17 C) -25 D) -23

243) $-2 - (-5) - 10 + 5$ 243) _____
 A) 22 B) 2 C) -12 D) -2

244)

$$\frac{1}{10} \quad 244)$$

$$\left(-\frac{1}{5}\right)$$

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

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

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

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

-

$$245) \quad \frac{2}{3} \quad \frac{1}{2}$$

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

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

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

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

245) ____

$$246) \quad \frac{4}{5} \quad \left(-\frac{7}{10}\right)$$

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

B) $\frac{11}{10}$

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

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

246) ____

$$247) \quad \frac{8}{9} \quad \left(\frac{3}{10} - \frac{1}{3}\right)$$

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

B) $\frac{83}{90}$

C) $\frac{83}{90}$

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

247) ____

$$248) \quad \frac{5}{7} \quad \left(-\frac{1}{5}\right)$$

A) $\frac{32}{35}$

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

C) $\frac{32}{35}$

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

248) ____

$$249) \quad \frac{3}{4} \quad \left(-\frac{5}{8}\right)$$

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

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

C) - 1

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

249) ____

$$250) \quad \frac{5}{6} \quad \left(-\frac{2}{7}\right)$$

A) $\frac{23}{42}$

B) $\frac{47}{42}$

C) $\frac{47}{42}$

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

250) ____

$$251) \quad \frac{5}{12} \quad \left(-\frac{2}{3} - \frac{1}{3}\right)$$

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

B) $\frac{17}{3}$

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

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

251) ____

$$252) \quad \left(-\frac{1}{3} - \frac{1}{3}\right) \quad \left(-\frac{4}{3} - 5\right)$$

A) $\frac{17}{3}$

B) $\frac{13}{3}$

C) 3

D) - 7

252) ____

- 253) $-2.8 - 6.3$ 253) _____
 A) 3.5 B) -3.5 C) 9.1 D) -9.1
- 254) $-12.7 - (-8.2)$ 254) _____
 A) 4.5 B) -20.9 C) -4.5 D) 20.9
- 255) $[-25.4 + (16.4 - 3.2)] - 2.4$ 255) _____
 A) -9.8 B) -14.6 C) -42.6 D) 36.2
- 256) $[-2.77 - (5.35 - 10.75)] - 12.40$ 256) _____
 A) -9.77 B) -0.93 C) 9.77 D) 0.93

Write a numerical expression for the phrase and simplify it.

- 257) The difference between 9 and -2 257) _____
 A) $-2 - 9$; -11 B) $2 - 9$; -7 C) $9 - (-2)$; 7 D) $9 - (-2)$; 11
- 258) 20 less than -16 258) _____
 A) $-16 - 20$; -36 B) $20 - 16$; 4 C) $20 - (-16)$; 36 D) $-16 - 20$; -36
- 259) The sum of 5 and -4, decreased by 2 259) _____
 A) $[5 - (-4)] - 2$; 7 B) $[5 + (-2)] + 4$; 7
 C) $[5 + (-4)] + 2$; 3 D) $[5 + (-4)] - 2$; -1
- 260) 15 less than the difference between 4 and -8 260) _____
 A) $(4 - 8) - 15$; -19 B) $15 - [4 - (-8)]$; 3
 C) $[4 - (-8)] - 15$; -3 D) $[4 - (-8)] - 15$; -19
- 261) 10 less than the difference between 3 and -10 261) _____
 A) $10 - 3 - 10$; -23 B) $-10 - 3 - 10$; -23
 C) $[3 - (-10)] - 10$; 3 D) $10 - 3 - (-10)$; 17

Solve the problem.

- 262) The stock market gained 52 points on Tuesday and lost 46 points on Wednesday. Find the difference between these changes. 262) _____
 A) -6 points B) 98 points C) -98 points D) 6 points
- 263) Nikki is fishing from a bank 16 feet above water level. In this location, the fish tend to feed at 39 feet below the surface. How long must Nikki's fish line be to reach the fish? 263) _____
 A) 23 feet B) 55 feet C) -16 feet D) -23 feet
- 264) Wayne has \$14.20 in his wallet. Janice has a debt note for \$25.07 in her wallet. Find the difference between these amounts. 264) _____
 A) \$39.27 B) \$10.87 C) -\$10.87 D) -\$39.27
- 265) Company A showed a profit of \$84,820 last year, while Company B had a loss of \$72,530. Find the difference between these amounts. 265) _____
 A) \$12,290 B) -\$12,290 C) -\$157,350 D) \$157,350
- 266) The temperature at the South pole was -30° at 8 am. At 3 pm, it was 32° . By how many degrees did the temperature rise? 266) _____
 A) -62° B) 2° C) -2° D) 62°

267) The ocean surface is at 0 ft elevation. A diver is underwater at an elevation of -131 ft near a rock formation. In this area, the ocean floor has an elevation of -237 ft. The rock formation rises to a peak 120 ft above the ocean floor. How many feet below the top of the rock formation is the diver? 267) _____

- A) 11 ft B) 117 ft C) 106 ft D) 14 ft

268) After one round in a card game, your score was -36 points. After the second round, your score was 2 points. How many points did you gain in the second game? 268) _____

- A) -34 points B) 2 points C) 38 points D) 34 points

269) In a certain location, the highest temperature recorded was 101°F . The lowest temperature recorded was 123 degrees less than the highest. What was the lowest temperature? 269) _____

- A) 0°F B) 22°F C) -22°F D) -138°F

270) The two charts show the weight gain of some people and the weight loss of other people. Use the information given to answer the question below. 270) _____

Weight gain (in gms)		Weight loss (in gms)	
Abe	3,051	Don	-2,958
Bob	4,208	Ed	-2,177
Carl	1,695	Frank	-857

What is the difference between the weight gain of Abe and the weight loss of Ed?

- A) 5228 grams B) 874 grams C) -874 grams D) -5228 grams

Provide an appropriate response.

271) If a , b , and c are real numbers, is this statement true or false? $0 - a = -a$ 271) _____
 A) True B) False

272) If a , b , and c are real numbers, is this statement true or false? If $a = b$, then $a - b = b - c$. 272) _____
 A) True B) False

273) If a , b , and c are real numbers, is this statement true or false? $-(-a) = -a$ 273) _____
 A) True B) False

274) If a , b , and c are real numbers, is this statement true or false? $-(a + b) = -a - b$ 274) _____
 A) True B) False

275) If a , b , and c are real numbers, is this statement true or false? $a - 0 = -a$ 275) _____
 A) True B) False

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

276) Is this statement true or false? Why? $(9 - 9) - 9 = 9 - (9 - 9)$ 276) _____

277) Is this statement true or false? Why? $(8 + 8) - 8 = 8 + (8 - 8)$ 277) _____

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

278) Given the problem $8 - [1 - (-2 - 17)]$, is the first step in solving to subtract -2 from -17 ? 278) _____
 A) Yes B) No

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

279) Make up a subtraction problem in which the difference between two negative numbers results in a positive number. 279) _____

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

Find the product.

280) $-5(15)$ 280) _____
A) -75 B) 50 C) 10 D) -25

281) $-3(-3)$ 281) _____
A) -19 B) 9 C) 19 D) -9

282) $-8(52)$ 282) _____
A) 516 B) -416 C) -406 D) 410

283) $-49(0)$ 283) _____
A) -49 B) 1 C) 49 D) 0

284) $\frac{7}{8} \left(-\frac{12}{35} \right)$ 284) _____
A) $\frac{5}{3}$ B) $\frac{3}{10}$ C) $\frac{3}{5}$ D) $\frac{1}{5}$

285) $-10 \left(-\frac{7}{4} \right)$ 285) _____
A) $\frac{35}{2}$ B) $\frac{7}{2}$ C) $\frac{35}{2}$ D) $\frac{7}{2}$

286) $15.7(8.57)$ 286) _____
A) 1345.49 B) 134.549 C) 13.4549 D) 1.34549

287) $-0.04(0.4)$ 287) _____
A) 1.6 B) -0.0016 C) 0.16 D) -0.016

288) $1.1(-5.19)$ 288) _____
A) 6.39 B) -5.709 C) -4.09 D) 6.29

Find the quotient.

289) $\frac{-96}{6}$ 289) _____
A) -26 B) 16 C) -16 D) $\frac{1}{16}$

290) $\frac{60}{-3}$ 290) _____
A) 20 B) -20 C) $\frac{1}{20}$ D) -30

291) $\frac{-208}{52}$ 291) _____
A) $\frac{1}{4}$ B) -14 C) -4 D) 4

292)

- 292) $\frac{-464}{-58}$ _____
 A) -8 B) $\frac{1}{8}$ C) -2 D) 8
- 293) $\frac{0}{-4}$ _____
 A) 4 B) 1 C) Undefined D) 0
- 294) $\frac{7}{15} \div (-\frac{1}{4})$ _____
 A) $\frac{28}{15}$ B) $\frac{7}{60}$ C) $\frac{15}{28}$ D) $\frac{28}{15}$
- 295) $\frac{5}{13} \div (-\frac{1}{4})$ _____
 A) $\frac{5}{52}$ B) $\frac{13}{20}$ C) $\frac{20}{13}$ D) $\frac{20}{13}$
- 296) $\frac{-9}{0}$ _____
 A) 9 B) Undefined C) 0 D) -9
- 297) $\frac{5.424}{4}$ _____
 A) -0.34 B) 1.356 C) 0.34 D) -1.356

Perform the indicated operation.

- 298) $\frac{-3(2)}{2 - (-1)}$ _____
 A) 6 B) -6 C) -2 D) 2
- 299) $\frac{-8(1) + 6(2)}{-3 - (-7)}$ _____
 A) 5 B) 1 C) -5 D) -1
- 300) $\frac{-20(-2) - (-6)(-4)}{-6(2) - 2(2)}$ _____
 A) 1 B) 4 C) -2 D) -1
- 301) $\frac{3^2 - 5^2}{2(-2 + 4)}$ _____
 A) 2 B) -2 C) 4 D) -4

Evaluate the expression, given $x = -2$, $y = 3$, and $a = -4$.

- 302) $-2x + 7y + 2a$ _____
 A) -18 B) 17 C) 25 D) -28
- 303) $(-3x + 5y)(2a)$ _____
 A) 132 B) 168 C) -168 D) 152

- 304) $-6a + 2y - 9x$
 A) 48 B) -7 C) -12 D) -23 304) _____
- 305) $(-7 + x)(6 + y)(9 - a)$
 A) -405 B) -225 C) 1053 D) -1053 305) _____
- 306) $(-8a)(-7x - 4y)$
 A) -64 B) 64 C) -416 D) -832 306) _____
- 307) $\left(\frac{1}{6}x - \frac{9}{2}y\right)\left(-\frac{1}{5}a\right)$
 A) $\frac{38}{5}$ B) $\frac{166}{15}$ C) $\frac{166}{3}$ D) $\frac{158}{15}$ 307) _____
- 308) $\frac{-2ax + 4y}{a + y}$
 A) -1 B) -12 C) 12 D) 4 308) _____
- 309) $2y - 7a^2$
 A) -22 B) -106 C) 118 D) -50 309) _____
- 310) $\frac{3a^2 - y}{x + 2}$
 A) $\frac{45}{4}$ B) 0 C) Undefined D) $\frac{51}{4}$ 310) _____

Write a numerical expression for the phrase and simplify it.

- 311) The product of -3 and 4, added to 9
 A) $9 + (-3)(4); -3$ B) $(9)(-3 + 4); 9$ C) $(-3 + 9)(4); 24$ D) $(-3)(4)(9); -108$ 311) _____
- 312) The product of 5 and -7, added to -9
 A) $(-9)(-7)(5); 315$ B) $(-9 + 5)(-7); 28$ C) $(-9)(-7) + 5; 68$ D) $(-9) + (5)(-7); -44$ 312) _____
- 313) The product of -1 and 7, subtracted from -3
 A) $-3 - (-1)(7); 4$ B) $(-3)(-1)(7); 21$ C) $[-3 - (-1)](7); -14$ D) $-3 + (-1)(7); -10$ 313) _____
- 314) Twice the product of -3 and -9, subtracted from 1
 A) $(1)(2)(-3)(-9); 54$ B) $(1 - 2)(-3 \cdot -9); -27$ C) $(1)(2)(-3 + 9); 12$ D) $1 - 2(-3 \cdot -9); -53$ 314) _____
- 315) 4 subtracted from the product of -9.2 and 8.5
 A) $4 - (-9.2)(8.5); 82.2$ B) $(-9.2)(8.5) - 4; -82.2$ C) $(4)(-9.2)(8.5); -312.8$ D) $[4 + (-9.2)](8.5); -44.2$ 315) _____
- 316) The product of 5 and the difference between 6 and -2
 A) $(5 - 6)(-2); 2$ B) $5[6 - (-2)]; 40$ C) $(5)(6) - (-2); 32$ D) $5[-2 - 6]; -40$ 316) _____

317) The product of -2 and the sum of 3 and -5 317) _____
 A) $-2[3 + (-5)]$; 4 B) $(-2)(3) + (-5)$; -11
 C) $-2 + (3)(-5)$; -17 D) $(-2)(-5) + 3$; 13

318) Three-eighths of the sum of -4 and -12 . 318) _____
 A) $\frac{3}{8} + [(-4) + (-12)]$; 1 B) $\frac{3}{8} [(-4) + (-12)]$; -6
 C) $(3 + 8)(-4) + (-12)$; -56 D) $\frac{3}{8} [(-4) + (-12)]$; -12

319) Four-ninths of the difference between -1 and -10 . 319) _____
 A) $4(9) [(-1) - (-10)]$; 4 B) $4(9) [(-1) - (-10)]$; 324
 C) $\frac{4}{9} + [(-1) - (-10)]$; 12 D) $\frac{4}{9} [(-1) - (-10)]$; 4

320) The quotient of -72 and -9 320) _____
 A) $(-9)(-72)$; 648 B) $\frac{-72}{-9}$; 8 C) $\frac{-72}{-9}$; $\frac{1}{8}$ D) $\frac{-9}{-72}$; $\frac{1}{8}$

321) The quotient of -45 and the sum of 2 and -7 321) _____
 A) $\frac{2 + (-7)}{-45}$; $\frac{1}{9}$ B) $\frac{-45}{2 + (-7)}$; 9
 C) $-45 + 2 + (-7)$; -50 D) $\frac{-45}{2 + (-7)}$; -9

322) The quotient of -46 and the sum of 10 and 13 322) _____
 A) $\frac{10 + 13}{-46}$; $\frac{1}{2}$ B) $\frac{-46}{10 - 2}$; 2
 C) $-46 + 10 + 13$; -23 D) $\frac{-46}{10 + 13}$; -2

323) The sum of 32 and -8 , divided by the product of 2 and -6 323) _____
 A) $\frac{32 + 8}{2 - (-6)}$; -6 B) $\frac{-8}{32 + 2(-6)}$; -2 C) $\frac{2(-6)}{32 + (-8)}$; $-\frac{1}{2}$ D) $\frac{32 + (-8)}{2(-6)}$; -2

324) The sum of -4 and -4 , divided by the product of 1 and -4 324) _____
 A) $\frac{-4}{-4 + 1(-4)}$; $-\frac{5}{8}$ B) $\frac{-4 + (-4)}{1(-4)}$; 2 C) $\frac{-4 + (-4)}{1 - (-4)}$; $-\frac{8}{5}$ D) $\frac{-4}{-4 + 1 + (-4)}$; $\frac{3}{5}$

325) The product of $\frac{2}{3}$ and $\frac{3}{4}$, divided by $-\frac{4}{5}$. 325) _____
 A) _____

$$\frac{\left(\frac{2}{3}\right)\left(\frac{3}{4}\right)}{-\frac{4}{5}} ; -\frac{2}{5}$$

B)
$$\frac{\left(\frac{2}{3}\right)}{\left(\frac{3}{4}\right)\left(-\frac{4}{5}\right)} ; -\frac{10}{9}$$

C)
$$\frac{\left(-\frac{4}{5}\right)}{\left(\frac{2}{3}\right)\left(\frac{3}{4}\right)} ; \frac{8}{5}$$

D)
$$\frac{\left(\frac{2}{3}\right)\left(\frac{3}{4}\right)}{-\frac{4}{5}} ; \frac{5}{8}$$

Write the sentence with symbols, using x to represent the number.

326) 10 times a number is 70.

A) $7x = 70$

B) $-10x = 70$

C) $10x = 70$

D) $\frac{70}{7} = x$

326) _____

327) The quotient of a number and 2 is -3.

A) $\frac{-6}{x} = 2$

B) $\frac{x}{-3} = 2$

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

D) $\frac{x}{2} = -3$

327) _____

328) 2 less than a number is 7.

A) $x - 2 = 7$

B) $x + 2 = 7$

C) $x + 7 = 2$

D) $2 - x = 9$

328) _____

329) When 10 is added to another number the result is 3.

A) $3 - 10 = x$

B) $x + 10 = 3$

C) $-7 + 3 = x$

D) $x + 3 = 10$

329) _____

Find the average of the numbers.

330) 15, 9, 6, 5, 5

A) 8

B) 41

C) 9

D) 10

330) _____

331) 5, 1, 8, 2, 3, 12, 14, 19

A) 24

B) 7

C) 9.14

D) 8

331) _____

332) -5, 12, -1, 4, 15

A) 4.2

B) 6.25

C) 5

D) 3

332) _____

333) What is the average of all integers between -10 and 15, inclusive of both?

A) 65

B) 2.5

C) 3.5

D) -31.5

333) _____

334) What is the average of all the even integers between -10 and 6, inclusive of both?

A) -1

B) -2

C) -18

D) 0

334) _____

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

Provide an appropriate response.

335) What values of a and b make the result negative? $-(a - b)$

335) _____

336) If x and y are both replaced by negative numbers, is the value of $5x - 3y$ positive or negative?

336) _____

337) The reciprocal of a positive number is a _____ number.

337) _____

338)

Is the following

expressio 338)

n

undefine

$$\frac{4 - 4}{4 - 4}$$

d?

339) A positive number multiplied by two negative numbers and then divided by a positive number is _____. 339) _____

340) The average of a group of negative numbers is a _____ number. 340) _____

341) The only real number that does not have a reciprocal is _____. 341) _____

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

342) Assume a is positive, b is negative, and c is positive for the expression $a + (b \cdot c)$ 342) _____

Tell whether the value of the given expression is positive, negative or cannot be determined.

- A) Cannot be determined B) Negative C) Positive

343) Assume a is positive, b is negative, and c is positive for the expression $(b - a) / c$ 343) _____

Tell whether the value of the given expression is positive, negative or cannot be determined.

- A) Cannot be determined B) Positive C) Negative

344) Assume a is positive, b is negative, and c is positive for the expression $a \cdot b^2 \cdot c$ 344) _____

Tell whether the value of the given expression is positive, negative or cannot be determined.

- A) Cannot be determined B) Negative C) Positive

Decide whether the statement is an example of the commutative, associative, identity, inverse, or distributive property.

345) $8 \cdot 1 = 8$ 345) _____
A) Distributive B) Inverse C) Commutative D) Identity

346) $(7 + 8) + 2 = (8 + 7) + 2$ 346) _____
A) Distributive B) Identity C) Commutative D) Associative

347) $2(x + 4) = 2x + 2 \cdot 4$ 347) _____
A) Identity B) Commutative C) Associative D) Distributive

348) $9 + (-9) = 0$ 348) _____
A) Commutative B) Identity C) Associative D) Inverse

349) $8 + 3 = 3 + 8$ 349) _____
A) Distributive B) Commutative C) Associative D) Identity

350) $(6 \cdot 5) \cdot 5 = 6 \cdot (5 \cdot 5)$ 350) _____
A) Associative B) Distributive C) Commutative D) Identity

351) $2 \cdot 4 = 4 \cdot 2$ 351) _____
A) Distributive B) Associative C) Identity D) Commutative

352)

$$\left(\frac{7}{8}\right)\left(\frac{8}{7}\right) = 1$$

- 352) _____

- A) Inverse B) Identity C) Commutative D) Associative

353) $8(7f) - 8(3g) = 8(7f - 3g)$ 353) _____

A) Commutative B) Identity C) Associative D) Distributive

Use the indicated property to provide a new expression equal to the given expression. Simplify, if possible.

354) $1 + x$; commutative 354) _____

A) $x + 1$ B) $x - 1$ C) $1 - x$ D) $-x - 1$

355) $b + 0$; identity 355) _____

A) $0 + b$ B) b C) 1 D) 0

356) $7 + 0$; identity 356) _____

A) 1 B) -7 C) 0 D) 7

357) $9(r + k)$; distributive 357) _____

A) $9r + 9k$ B) $9r + k$ C) $9r - 9k$ D) $r(9 + k)$

358) $\frac{1}{7}$ 358) _____
 $7 \cdot \frac{1}{7}$; inverse

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

359) $14 + (-14)$; inverse 359) _____

A) -28 B) 28 C) 0 D) 196

360) $-3(x + 8)$; distributive 360) _____

A) $x - 24$ B) $-3x + 8$ C) $-3x - 24$ D) $3x - 24$

361) $7(k - 5)$; distributive 361) _____

A) $7k - 5$ B) $k - 35$ C) $7k + 35$ D) $7k - 35$

362) $3 \cdot 1$; identity 362) _____

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

363) $(7x + 4y) + 4z$; associative 363) _____

A) $(7x + 4y + 4z)$ B) $(4y + 7x) + 4z$ C) $7x + 4y + 4z$ D) $7x + (4y + 4z)$

Use the properties of real numbers to simplify the expression.

364) $\frac{4}{7} + \frac{5}{8} + \frac{11}{8} + \frac{4}{7}$ 364) _____

A) 0 B) 4 C) 8 D) 2

365) $\frac{5}{7}(-0.26)\left(\frac{7}{5}\right)$ 365) _____

A) $\frac{5}{7}$ B) 1 C) -0.26 D) -1

Use the distributive property to rewrite the expression.

366) $7(x + 3)$ 366) _____
A) $7x + 21$ B) $7x + 3$ C) $7x + 7$ D) $21x$

367) $8(9x + 6y + 9)$ 367) _____
A) $72x + 48y + 9$ B) $72x + 6y + 9$ C) $72x + 48y + 72$ D) $72x + 6y + 72$

368) $3(6r + 6 + 2s)$ 368) _____
A) $18r + 18 + 2s$ B) $18r + 6 + 6s$ C) $18r + 18 + 6s$ D) $18r + 6 + 2s$

369) $4(-6x) + 4(8y)$ 369) _____
A) $8(-6x + 8y)$ B) $-24x + 32y$ C) $4x(-6 + 8) = 8x$ D) $4(-6x + 8y)$

370) $\frac{8}{5}(10x + 5y)$ 370) _____
A) $-24x$ B) $16x + 8y$ C) $-16x + 8y$ D) $-16x - 8y$

371) $7 \cdot x + 7 \cdot z$ 371) _____
A) $49(x + z)$ B) $7(x + z)$ C) $14(x + z)$ D) $7(xz)$

372) $\frac{4}{3}(48x + 12y)$ 372) _____
A) $80xy$ B) $80(x + y)$ C) $64x + 16y$ D) $16x + 4y$

Use the distributive property to write without parentheses.

373) $-(4x + 3y)$ 373) _____
A) $-4x - 3y$ B) $4x - 3y$ C) $4x + 3y$ D) $-4x + 3y$

374) $-(-7v - 4r)$ 374) _____
A) $-7v + 4r$ B) $-7v - 4r$ C) $7v - 4r$ D) $7v + 4r$

375) $-(-7m + 6n - 4p)$ 375) _____
A) $-7m + 6n + 4p$ B) $7m - 6n + 4p$ C) $7m - 6n - 4p$ D) $-7m + 6n - 4p$

376) $-(5z - 5w + 8y)$ 376) _____
A) $-5z + 5w + 8y$ B) $-5z - 5w + 8y$ C) $-5z + 5w - 8y$ D) $-5z - 5w - 8y$

377) $-(-3t - 7r - 8s)$ 377) _____
A) $3t + 7r - 8s$ B) $-3t - 7r + 8s$ C) $-3t - 7r - 8s$ D) $3t + 7r + 8s$

378) $-(6n + 2w + 6g)$ 378) _____
A) $-6n - 2w + 6g$ B) $6n + 2w + 6g$ C) $6n - 2w + 6g$ D) $-6n - 2w - 6g$

Decide whether or not the events are commutative.

379) Recording a check or a deposit in your check book if both are made on the same day. 379) _____
A) Yes B) No

- 380) Putting sugar or cream into your coffee first. 380) _____
 A) No B) Yes
- 381) Putting an Easter ham or a loaf of bread into a small grocery sack first. 381) _____
 A) No B) Yes
- 382) Turning on the printer and printing a computer report. 382) _____
 A) Yes B) No
- 383) Setting the table and eating dinner. 383) _____
 A) No B) Yes
- 384) Putting on your left glove and then your right glove. 384) _____
 A) No B) Yes
- 385) $16 - (5 - 8)$ and $(16 - 5) - 8$ 385) _____
 A) No B) Yes

Answer the question.

- 386) There is an associative property for both addition and multiplication. Is there an associative property for subtraction? If so, state the property. 386) _____
 A) No. B) Yes. $x - (y - z) = (x - y) - z$
- 387) There is a distributive property for multiplication with respect to addition: $a(b + c) = ab + ac$. Is there a distributive property for multiplication with respect to subtraction? If so, state the property. 387) _____
 A) Yes. $a(b - c) = ab - ac$ B) No.
- 388) Choose the expression that is equivalent to the following: $0 + 7c$ 388) _____
 A) 0 B) $7 + c$ C) $-7c$ D) $7c$
- 389) Choose the expression that is equivalent to the following: $1(4z^3)$ 389) _____
 A) $5z^3$ B) 1 C) $4z^3$ D) $4z^4$
- 390) Choose the expression that is equivalent to the following: $3(7a) + 3(5b)$ 390) _____
 A) $3(12ab)$ B) $6(7a + 5b)$ C) $3(7a + 5b)$ D) $6(12ab)$
- 391) Choose the expression that is equivalent to the following: $20x + 5y$ 391) _____
 A) $5(4x + y)$ B) $5(4x + 5y)$ C) $5(15x + y)$ D) $25xy$
- 392) Choose the expression that is equivalent to the following: $(4x + 3y)(9y + 2x)$ 392) _____
 A) $(4x + 3y)(2y + 9x)$ B) $(4x + 2y)(3x + 9y)$
 C) $(4x + 3y)(2x + 9y)$ D) $6x + 12y$
- 393) Choose the expression that is equivalent to the following: $(2x + 9y)(5y^2)$ 393) _____
 A) $(2x + 9y)(5y^2)$ B) $(5y^2)(2x + 9y)$ C) $2x + (9y + 5y^2)$ D) $(2x + 5y^2)(9y)$
- 394) Choose the expression that is equivalent to the following: $8\left(\frac{1}{8}\right)$ 394) _____

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

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

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

D) $\frac{1}{64}$

395) Choose the expression that is equivalent to the following: $4 - 4$

A) $(4)(4)$

B) $(-2)(4)$

C) $2(4)$

D) $4 + (-4)$

395) _____

Simplify the expression.

396) $6a - 3a + 3$

A) $9a + 3$

B) $-3a + 3$

C) $6a$

D) $3a + 3$

396) _____

397) $4 + 5(9 - 8m)$

A) $49 - 8m$

B) $49 - 40m$

C) $49 + 40m$

D) $45 - 40m$

397) _____

398) $-12 - (4 - 15p)$

A) $-16 + 15p$

B) $8 - 15p$

C) $-8 - 15p$

D) $16 + 15p$

398) _____

399) $2g + 25 - 5$

A) $2g + 30$

B) $2g - 20$

C) $22g$

D) $2g + 20$

399) _____

400) $7 + 6(x + 2y)$

A) $7 + 6x + 2y$

B) $7 + 6x + 12y$

C) $13x + 2y$

D) $7 + 12xy$

400) _____

401) $9 - 5(s - 6t)$

A) $9 + 5s - 30t$

B) $9 - 5s - 30t$

C) $9 - 5s + 30t$

D) $9 + 5s + 30t$

401) _____

Give the numerical coefficient of the term.

402) z

A) -1

B) z

C) 0

D) 1

402) _____

403) $-5y^{10}$

A) 5

B) 10

C) y^{10}

D) -5

403) _____

404) $-4y$

A) y

B) $4y$

C) 4

D) -4

404) _____

405) -10

A) -10

B) 1

C) 10

D) 0

405) _____

406) 10

A) 1

B) 0

C) -1

D) 10

406) _____

407) xz

A) 1

B) x

C) 0

D) xz

407) _____

408) $-w$

A) 0

B) -1

C) 1

D) $-w$

408) _____

409) $10k^2$

A) 2

B) 100

C) 10

D) 20

409) _____

Identify the group of terms as like or unlike.

410) $14z, -15z$

410) _____

A) Unlike

B) Like

411) $18a^4, 18a^7$

411) _____

A) Unlike

B) Like

412) $14m, 9m, -4m$

412) _____

A) Unlike

B) Like

413) $8, 10, -5$

413) _____

A) Unlike

B) Like

414) $7b, 8, 5a$

414) _____

A) Like

B) Unlike

415) $7m, -9m$

415) _____

A) Unlike

B) Like

416) m, n

416) _____

A) Unlike

B) Like

417) $12v^6, -8v^4$

417) _____

A) Like

B) Unlike

418) $9v^8, -11v^8$

418) _____

A) Like

B) Unlike

Simplify the expression by combining like terms.

419) $6p^2 + 7p^3 - 8p^2 - 9p^3$

419) _____

A) $13p^2 - 17p^3$

B) $-4p^2$

C) $-2p^2 - 2p^3$

D) $-4p^2p^3$

420) $\frac{1}{12} + 3y + \frac{7}{12}y - 18 + \frac{17}{12}y$

420) _____

A) $5 + 17$

B) $5y - \frac{217}{12}$

C) $\frac{23}{6}y - 17$

D) $\frac{43}{12}y$

421) $-5(3r + 7) + 3(3r + 10)$

421) _____

A) $-50r$

B) $-2r + 2$

C) $-6r + 7$

D) $-6r - 5$

422) $15p + 5(6 - 4p)$

422) _____

A) $5p - 30$

B) $-5p + 30$

C) $11p + 30$

D) $35p - 30$

423) $-5(-5t + 6) - (8t + 7) - 3t + 13$

423) _____

A) $-14t + 13$

B) $14t - 24$

C) $30t - 10$

D) $14t + 36$

424) $-4.6p + 5.8 - (7p + .3) + 5.8p$

424) _____

A) $8.2p + 6.1$

B) $-5.8p + 6.1$

C) $-5.8p + 5.5$

D) $8.2p + 5.5$

425) $\frac{2}{7}(z - 16) - \frac{1}{14}z$

425) _____

A)

$$\frac{5}{14}z - \frac{32}{7}$$

B)
$$\frac{5}{14}z + \frac{32}{7}$$

C)
$$\frac{3}{14}z + 16$$

D)
$$-\frac{5}{14}z + \frac{32}{7}$$

Write the phrase as a mathematical expression. Use x to represent the number. Combine like terms if possible.

426) Three times a number, added to the sum of the number and four. 426) _____

A) $7x$

B) $4x$

C) $3x + 4$

D) $(x + 4) + 3x; 4x + 4$

427) A number multiplied by -6 , subtracted from the sum of 18 and four times the number. 427) _____

A) $(18 + 4x) - (-6)x; 18 + 10x$

B) $6x - (18 + 4x); 2x - 18$

C) $6x - 22$

D) $(18 + 4x) + (-6)x; 18 - 2x$

428) A number multiplied by 6 , added to -4 , subtracted from 3 times the sum of 3 times the number and 9 428) _____

A) $3(3x + 9) - [6x + (-4)]; 3x + 31$

B) $6(-4 + x) + 3(3x + 9); 15x - 15$

C) $6(-4 + x) + 3(3 + 9x); 15x - 15$

D) $6x - 4 + 3(3 + 9x); 33x + 15$

429) 3 times a number added to -4 , added to 8 times the sum of 7 times the number and 9 429) _____

A) $8(7x + 9) + [3x + (-4)]; 59x + 68$

B) $3x - 4 + 8(7 + 9x); 75x + 59$

C) $3(-4 + x) + 8(7 + 9x); 12x + 44$

D) $3(-4 + x) + 8(7x + 9); 59x - 3$

430) Eight times a number added to -4 , subtracted from twice the sum of nine times the number and 2 . 430) _____

A) $8(x - 4) - (2 + 9)(x + 2); -54 - 3x$

B) $(2 + 9)(x + 2) - 8(x - 4); 54 + 3x$

C) $(-4 + 8x) - 2(9x + 2); -8 - 10x$

D) $2(9x + 2) - (-4 + 8x); 8 + 10x$

- 1) C
- 2) B
- 3) D
- 4) B
- 5) B
- 6) C
- 7) A
- 8) D
- 9) C
- 10) D
- 11) B
- 12) A
- 13) D
- 14) C
- 15) C
- 16) A
- 17) C
- 18) C
- 19) D
- 20) A
- 21) B
- 22) D
- 23) B
- 24) C
- 25) D
- 26) A
- 27) A
- 28) B
- 29) A
- 30) A
- 31) B
- 32) B
- 33) B
- 34) B
- 35) D
- 36) D
- 37) D
- 38) B
- 39) A
- 40) Five is less than or equal to five. True
- 41) One is not equal to nine. True
- 42) Six is greater than or equal to Two. True
- 43) Fifteen is greater than five plus nine. True
- 44) Fourteen is less than or equal to six plus nine. True
- 45) Thirteen-eighths is not equal to five-fourths. True.
- 46) Two-fifths is not equal to three-tenths. True.
- 47) A
- 48) D
- 49) C
- 50) D
- 51) D

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

- 104) A
- 105) C
- 106) C
- 107) B
- 108) B
- 109) B
- 110) A
- 111) A
- 112) A
- 113) B
- 114) B
- 115) B
- 116) A
- 117) A
- 118) C
- 119) C
- 120) B
- 121) A
- 122) D
- 123) C
- 124) D
- 125) -3
- 126) One example is 4. There are others.
- 127) One example is 3. There are others.
- 128) A
- 129) D
- 130) D
- 131) B
- 132) B
- 133) C
- 134) A
- 135) B
- 136) A
- 137) B
- 138) A
- 139) A
- 140) A
- 141) B
- 142) B
- 143) B
- 144) A
- 145) D
- 146) A
- 147) A
- 148) B
- 149) A
- 150) A
- 151) B
- 152) A
- 153) B
- 154) B
- 155) B

- 156) A
157) B
158) B
159) B
160) B
161) B
162) B
163) D
164) C
165) D
166) D
167) A
168) D
169) C
170) C
171) A
172) A
173) A
174) B
175) A
176) A
177) The integer is neither. It is not a signed integer.
It is the starting point on a number line.
178) The same way as for whole numbers.
179) 0 itself
180) Change subtraction to addition, and change the sign of the subtrahend to its opposite.
 $-6 - (-3) = -6 + (+3) = -3$
181) An integer multiplied by 1 gives the same integer, multiplied by -1 gives the opposite of the integer, and multiplied by 0 gives 0.
182) One example is 9. There are others.
183) 5, -5, -5, 5
184) C
185) C
186) B
187) A
188) A
189) A
190) C
191) B
192) D
193) B
194) A
195) C
196) A
197) D
198) A
199) A
200) A
201) C
202) D
203) C
204) A

- 205) A
- 206) B
- 207) A
- 208) D
- 209) B
- 210) A
- 211) D
- 212) D
- 213) D
- 214) C
- 215) C
- 216) D
- 217) B
- 218) A
- 219) A
- 220) D
- 221) D
- 222) C
- 223) C
- 224) C
- 225) C
- 226) B
- 227) C
- 228) D
- 229) The absolute value of the negative number must be greater than the absolute value of the positive number.
- 230) The absolute value of the positive number must be greater than the absolute value of the negative number.
- 231) A
- 232) B
- 233) A
- 234) B
- 235) C
- 236) B
- 237) C
- 238) B
- 239) B
- 240) D
- 241) C
- 242) D
- 243) D
- 244) C
- 245) B
- 246) A
- 247) C
- 248) C
- 249) D
- 250) B
- 251) C
- 252) A
- 253) D
- 254) C
- 255) B
- 256) A

- 257) D
- 258) D
- 259) D
- 260) C
- 261) C
- 262) B
- 263) B
- 264) A
- 265) D
- 266) D
- 267) D
- 268) C
- 269) C
- 270) A
- 271) A
- 272) B
- 273) B
- 274) A
- 275) B
- 276) False. Answers will vary.
- 277) True. Answers will vary.
- 278) B
- 279) Answers may vary. One possible answer is $-2 - (-12) = 10$.
- 280) A
- 281) B
- 282) B
- 283) D
- 284) B
- 285) C
- 286) B
- 287) D
- 288) B
- 289) C
- 290) B
- 291) C
- 292) D
- 293) D
- 294) A
- 295) C
- 296) B
- 297) B
- 298) C
- 299) B
- 300) D
- 301) D
- 302) B
- 303) C
- 304) A
- 305) D
- 306) B
- 307) B
- 308) D

- 309) B
- 310) C
- 311) A
- 312) D
- 313) A
- 314) D
- 315) B
- 316) B
- 317) A
- 318) B
- 319) D
- 320) B
- 321) B
- 322) D
- 323) D
- 324) B
- 325) D
- 326) C
- 327) D
- 328) A
- 329) B
- 330) A
- 331) D
- 332) C
- 333) B
- 334) B
- 335) a must be greater than b
- 336) Positive if $|3y|$ is greater than $|5x|$;
negative if the opposite is true.
- 337) Positive
- 338) Yes
- 339) Positive
- 340) negative
- 341) zero
- 342) A
- 343) C
- 344) C
- 345) D
- 346) C
- 347) D
- 348) D
- 349) B
- 350) A
- 351) D
- 352) A
- 353) D
- 354) A
- 355) B
- 356) D
- 357) A
- 358) B
- 359) C

360) C
361) D
362) A
363) D
364) D
365) C
366) A
367) C
368) C
369) D
370) D
371) B
372) C
373) A
374) D
375) B
376) C
377) D
378) D
379) A
380) B
381) A
382) B
383) A
384) B
385) A
386) A
387) A
388) D
389) C
390) C
391) A
392) C
393) B
394) C
395) D
396) D
397) B
398) A
399) D
400) B
401) C
402) D
403) D
404) D
405) A
406) D
407) A
408) B
409) C
410) B
411) A

- 412) B
- 413) B
- 414) B
- 415) B
- 416) A
- 417) B
- 418) A
- 419) C
- 420) B
- 421) D
- 422) B
- 423) B
- 424) C
- 425) D
- 426) D
- 427) A
- 428) A
- 429) A
- 430) D