

Solve the problem.

- 1) The temperature at 5:00 was -2°C . Four hours later, it was -8°C . What was the change in temperature? 1) _____
- A) 6°C B) -6°C C) 10°C D) -10°C

Simplify.

- 2) $\frac{7 + (-3)^2 + 7 \cdot 8}{7 \cdot (8 - 4)}$ 2) _____
- A) 1 B) 2 C) $\frac{106}{13}$ D) $\frac{18}{7}$

Give the numerical coefficient of the term.

- 3) $-8y^4x^2$ 3) _____
- A) 4, 2 B) -8 C) -8, 4, 2 D) 8

Simplify the expression, and combine like terms.

- 4) $-9 + 5(4 - 9m)$ 4) _____
- A) $20 - 45m$ B) $11 + 45m$ C) $11 - 9m$ D) $11 - 45m$

Simplify each side of the equation, if possible. Then solve the equation.

- 5) $-4a + 2 + 5a = 10 - 21$ 5) _____
- A) -33 B) 33 C) -13 D) 13

Solve the equation.

- 6) $\frac{1}{6}f - 3 = 1$ 6) _____
- A) -12 B) 12 C) 24 D) -24

Write the sentence as an equation, using x for the unknown number. Then solve the equation

- 7) The sum of four times a number and 1 is equal to the difference of twice the number and 8. Find the number. 7) _____
- A) $4(x + 1) = 2x - 8; -6$ B) $4x + 1 = 2x - 8; \frac{9}{2}$
- C) $4x + 1 = 2x - 8; -\frac{9}{2}$ D) $4x + 1 = 2x + 8; \frac{7}{2}$

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

- 8) $-7x + 5y - 9a$ 8) _____
- A) 5 B) -33 C) 61 D) 65

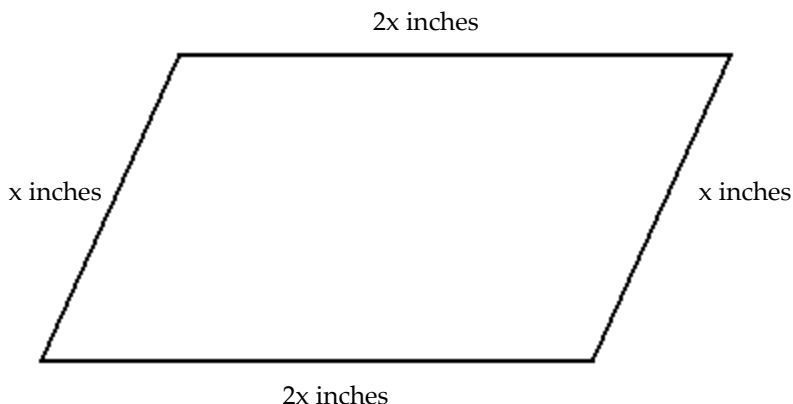
Perform the indicated operations.

- 9) $7z - (17 - 3z)$ 9) _____
- A) $4z - 17$ B) $10z - 17$ C) $10z + 17$ D) $4z + 17$

Solve the problem.

10) The perimeter of a figure is the sum of the lengths of its sides. If the perimeter of the following parallelogram is 30 inches, find the length of each side.

10) _____

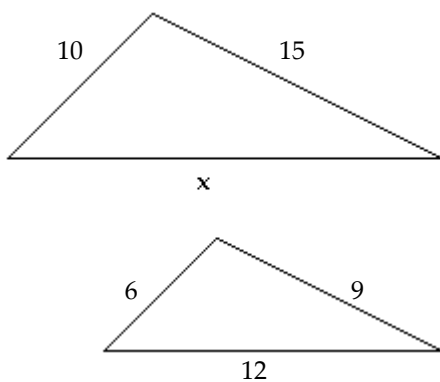


- A) $x = 10$ inches; $2x = 20$ inches
 C) $x = 10$ inches; $2x = 5$ inches

- B) $x = 5$ inches; $2x = 10$ inches
 D) $x = 7.5$ inches; $2x = 15$ inches

Given that the pair of triangles is similar, find x.

11)



11) _____

- A) 25 B) 19 C) 12 D) 20

Choose the set of ordered pairs that are all solutions to the equation.

12) $3x + y = -11$

12) _____

- A) $(-5, 4), (0, 0), (1, -14)$ B) $(-5, 4), (0, -11), (1, -14)$
 C) $(-5, -5), (0, -11), (1, -14)$ D) $(-5, 4), (0, -19), (1, -14)$

Identify the polynomial as a monomial, binomial, trinomial, or none of these.

13) $-8s^5 - 1s - 5$

13) _____

- A) None of these B) Binomial C) Monomial D) Trinomial

Use the quotient rule to simplify each expression.

14) $\frac{s^{10}t^{12}}{s^2t}$

14) _____

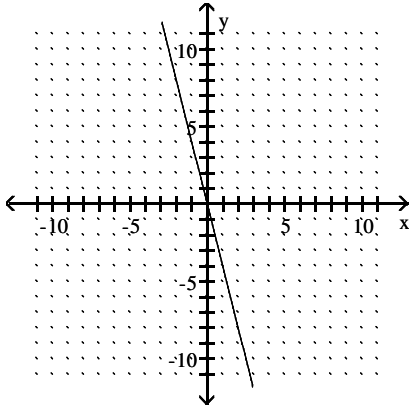
- A) s^8t^{11} B) $s^{12}t^{13}$ C) s^8t^{10} D) s^8t^{12}

Match the graph with the equation.

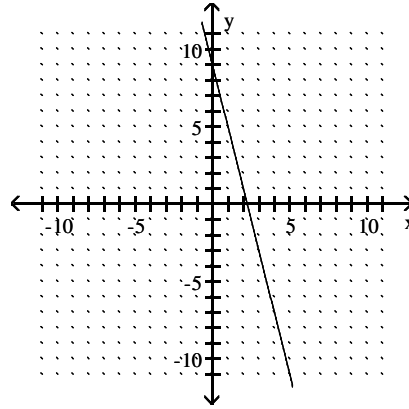
15) $y = -4x + 9$

15) _____

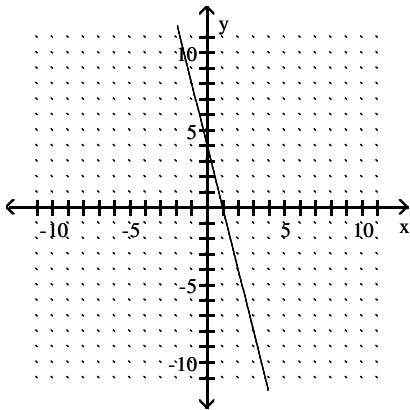
A)



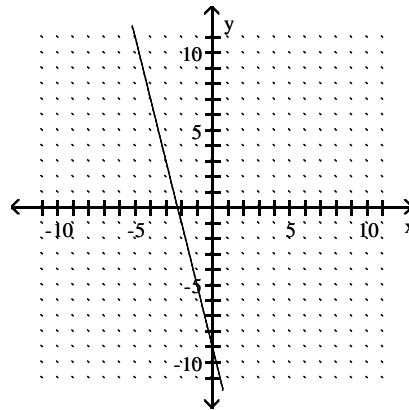
B)



C)



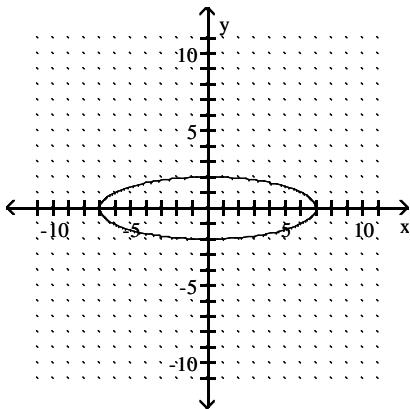
D)



Identify the intercepts.

16)

16) _____



A) $(0, 2), (0, -2)$

B) $(2, 0), (-2, 0), (0, 7), (0, -7)$

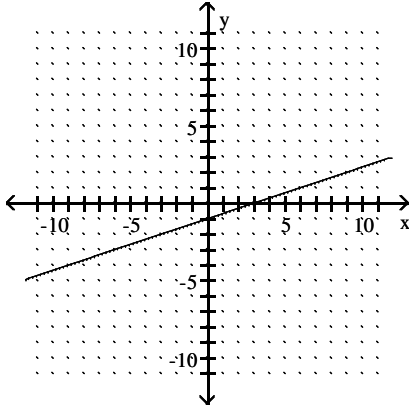
C) $(7, 0), (-7, 0)$

D) $(7, 0), (-7, 0), (0, 2), (0, -2)$

Find the slope of the line if it exists.

17)

17) _____



A) -3

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

C) 3

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

Find the product.

18) $-3x^3(2x - 4)$

A) $-6x + 12$

B) $-6x^4 + 12x^3$

C) $6x^3$

D) $-6x^4 - 4$

18) _____

19) $(3m + 7)^2$

A) $3m^2 + 49$

B) $9m^2 + 49$

C) $9m^2 + 42m + 49$

D) $3m^2 + 42m + 49$

19) _____

20) $(4x - 12)(x - 12)$

A) $4x^2 + 19x + 144$

B) $4x^2 - 60x + 144$

C) $x^2 + 144x - 60$

D) $x^2 - 60x + 19$

20) _____

Simplify the expression by combining like terms.

21) $11r - 9r^6 + 13r^6 - 4r$

A) Can't be simplified

B) $11r$

C) $7r + 4r^6$

D) $11r^6$

21) _____

Find the greatest common factor.

22) 24, 36, 60

A) 4

B) 2

C) 120

D) 12

22) _____

Perform the indicated operations.

23) $(4y^2 + 8) - (-14y^4 - 2y^2 + 8)$

A) $14y^4 + 6y^2$

B) $-14y^4 + 2y^2 + 16$

C) $20y^6$

D) $14y^4 + 6y^2 - 16$

23) _____

Factor out the GCF from the polynomial.

24) $6m^9 + 21m^5 + 12m^2$

A) $3m^2(2m^7 + 7m^3 + 4)$

B) $-3m^2(2m^7 - 7m^3 - 4)$

C) $m^2(6m^7 + 21m^3 + 12)$

D) $3(2m^9 + 7m^5 + 4m^2)$

24) _____

Write the number in scientific notation.

25) 0.000077311

A) 7.7311×10^5

B) 7.7311×10^4

C) 7.7311×10^{-4}

D) 7.7311×10^{-5}

25) _____

Perform the division.

26) $\frac{20x^7 - 24x^3}{-4x^7}$

A) $-5 + \frac{6}{x^4}$

B) $-5 + 6x^4$

C) $20x^7 + \frac{6}{x^4}$

D) $-5 - 24x^3$

26) _____

Write the phrase as an algebraic expression. Let x represent the unknown number.

27) The product of a number and 3 is the same as 4 subtracted from twice the number.

A) $3x = 2x - 4$

B) $x - 3 = 4 - 2x$

C) $x + 3 = 2x - 4$

D) $\frac{x}{3} = 4 - 2x$

27) _____

Write as a decimal.

28) 800%

A) 0.8

B) 80

C) 8

D) 8.01

28) _____

Solve. Round to the nearest hundredth, if necessary.

29) 5% of 700 is what number?

A) 35

B) 0.35

C) 350

D) 3.5

29) _____

30) 15 is 8% of what number?

A) 120

B) 1875

C) 187.5

D) 18.75

30) _____

Solve the problem.

31) Jeans are on sale at the local department store for 15% off. If the jeans originally cost \$48, find the sale price. (Round to the nearest cent, if necessary.)

A) \$47.28

B) \$55.20

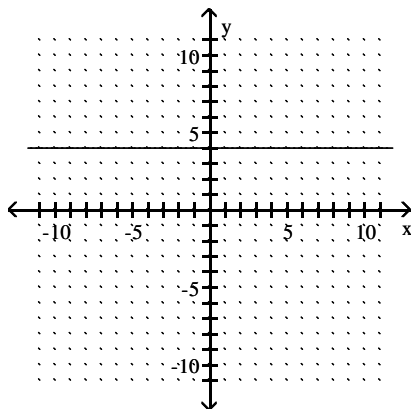
C) \$7.20

D) \$40.80

31) _____

Match the equation with its graph.

32)



A) $y = 2x + 4$

B) $y = -4$

C) $x = 4$

D) $y = 4$

32) _____

Find the slope of the line through the points.

33) $(-7, 17)$ and $(2, 3)$

A) -4

B) $-\frac{9}{14}$

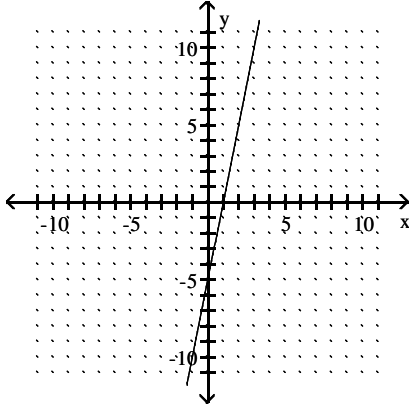
C) $-\frac{14}{9}$

D) $\frac{14}{9}$

33) _____

Identify the intercepts.

34)



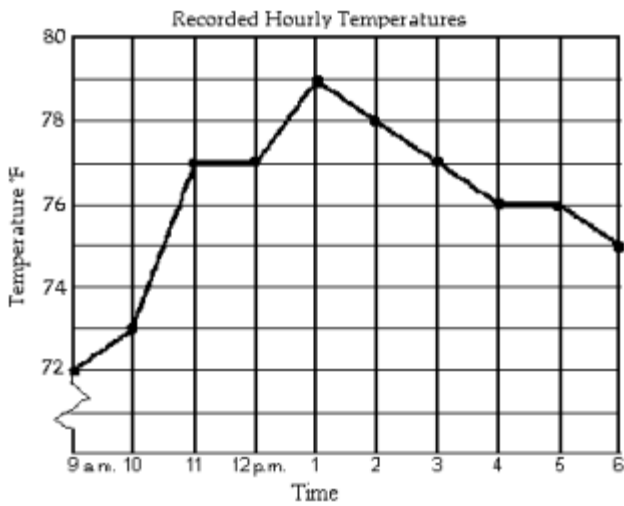
A) $(1, 0), (0, 5)$

B) $(-1, 0), (0, -5)$

C) $(-5, 0), (0, 5)$

D) $(1, 0), (0, -5)$

34) _____



35) At what time was the temperature the highest?

A) 5 p.m.

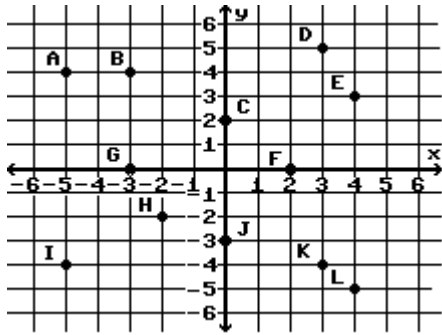
B) 1 p.m.

C) 2 p.m.

D) 11 a.m.

35) _____

Locate the point on the rectangular coordinate system.



36) $(0, 2)$ _____
 A) B B) C C) K D) F

37) Which quadrant is Point B located in? _____
 A) IV B) III C) II D) I

38) $\sqrt[3]{-125x^6}$ _____
 A) None of these B) $-5x^3$ C) $5x^2$ D) $-5x^2$

Solve the problem using a known formula.

39) Jim runs one time around a circular track that has a radius of 3 kilometers, and Chris runs two times around a circular track with a radius of 2 kilometers. Who ran the farther distance? (Use 3.14 as an approximation for π . Hint: $C = 2\pi r$.) _____
 A) Jim and Chris both ran the same distance.
 B) Chris ran a farther distance.
 C) Jim ran a farther distance.

40) Jenna's has won \$15,000 in a lottery. Her bank tells her that if she invests with them she will receive \$870 simple interest after one year. What rate of interest is that? (Round to nearest tenth of a percent.) _____
 A) 6.0% B) 5.8% C) 5.6% D) 2.6%

Answer Key

Testname: PRACTICE TEST 3

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