

# Chapter 1 Pretest Form A

Name: \_\_\_\_\_

Date: \_\_\_\_\_

1. Evaluate  $4|x| - 5y^2$  when  $x = -3$  and  $y = -2$ .

1. \_\_\_\_\_

2. Translate the following phrase to an algebraic expression.  
Use  $x$  to represent the unknown number.  
Five less than three times a number

2. \_\_\_\_\_

Insert  $<$ ,  $>$ , or  $=$  between each pair of numbers to form a true statement.

3.  $\frac{3}{4}$  \_\_\_\_\_  $\frac{15}{19}$

3. \_\_\_\_\_

4.  $-9$  \_\_\_\_\_  $-10$

4. \_\_\_\_\_

Write the opposite (or additive inverse) of each number if one exists.

5.  $-\frac{2}{5}$

5. \_\_\_\_\_

6.  $8.75$

6. \_\_\_\_\_

Simplify.

7.  $-|-17|$

7. \_\_\_\_\_

8.  $-(-6)^2 - (-9)$

8. \_\_\_\_\_

9.  $-\frac{4.6}{2.3}$

9. \_\_\_\_\_

10.  $7(x + 4y + 3) - 5(x + 7y + 6)$

10. \_\_\_\_\_

## Chapter 1 Pretest Form A (cont.)

Name: \_\_\_\_\_

Simplify.

11.  $\sqrt{\frac{36}{49}}$

11. \_\_\_\_\_

12.  $\frac{(-8)(-5) - 2 \cdot 2^3}{7 - \sqrt{81} + 12}$

12. \_\_\_\_\_

13.  $4(3x - 7) - 3(1 - x)$

13. \_\_\_\_\_

Simplify. Write answers using positive exponents only.

14.  $(3a^5)(7a^9)$

14. \_\_\_\_\_

15.  $\frac{-35a^3b^6c}{-7ab^{10}c^2}$

15. \_\_\_\_\_

16.  $\frac{y^{-5}y^9}{y^{12}}$

16. \_\_\_\_\_

17.  $6(y^3z)^{-4}$

17. \_\_\_\_\_

18.  $\left(\frac{7x^{-3}y^2}{14xz^4}\right)^{-4}$

18. \_\_\_\_\_

19. Evaluate.  $(3x)^0 + 2$

19. \_\_\_\_\_

20. Write the following number in scientific notation.  
7,050,000,000

20. \_\_\_\_\_

# Chapter 1 Pretest Form B

Name: \_\_\_\_\_

Date: \_\_\_\_\_

1. Evaluate  $3|x| - 4y^2$  when  $x = -4$  and  $y = -2$ .

1. \_\_\_\_\_

2. Translate the following phrase to an algebraic expression.  
Use  $x$  to represent the unknown number.  
Eight more than five times a number

2. \_\_\_\_\_

Insert  $<$ ,  $>$ , or  $=$  between each pair of numbers to form a true statement.

3.  $\frac{7}{8}$  \_\_\_\_\_  $\frac{21}{25}$

3. \_\_\_\_\_

4.  $-12$  \_\_\_\_\_  $-15$

4. \_\_\_\_\_

Write the opposite (or additive inverse) of each number if one exists.

5.  $\frac{3}{4}$

5. \_\_\_\_\_

6.  $-7.35$

6. \_\_\_\_\_

Simplify.

7.  $|-23|$

7. \_\_\_\_\_

8.  $-(-7)^2 - (-10)$

8. \_\_\_\_\_

9.  $-\frac{8.5}{1.7}$

9. \_\_\_\_\_

10.  $5x + 2(5x - 4) - 5(2x - 3)$

10. \_\_\_\_\_

# Chapter 1 Pretest Form B (cont.)

Name: \_\_\_\_\_

Simplify.

11.  $\sqrt{\frac{9}{100}}$  11. \_\_\_\_\_

12.  $\frac{6(-5) - 2 \cdot 3^5}{-9 - \sqrt{16} + 5}$  12. \_\_\_\_\_

13.  $3(4x - 5) - 5(2 - x)$  13. \_\_\_\_\_

Simplify. Write answers using positive exponents only.

14.  $(-4a^7)(6a^8)$  14. \_\_\_\_\_

15.  $\frac{-48a^4b^3c}{-8ab^{11}c^3}$  15. \_\_\_\_\_

16.  $\frac{x^{-4}x^{10}}{x^{-7}}$  16. \_\_\_\_\_

17.  $14(y^2z)^{-5}$  17. \_\_\_\_\_

18.  $\left(\frac{3x^{-1}y^2}{15x^2z^4}\right)^{-3}$  18. \_\_\_\_\_

19. Evaluate.  $(4x)^0 - 1$  19. \_\_\_\_\_

20. Write the following number in scientific notation.  
805,300,000,000 20. \_\_\_\_\_

# Chapter 1 Test Form A

Name:

Date:

Write each set in roster form.

1.  $\{x|x \text{ is an even integer between } -5 \text{ and } 3\}$

1. \_\_\_\_\_

2.  $\{x|x \text{ is natural number greater than } 8\}$

2. \_\_\_\_\_

Determine whether each statement is true or false.

3.  $-4 > -|-5|$

3. \_\_\_\_\_

4.  $-7.6 < -7.59$

4. \_\_\_\_\_

Name the property illustrated.

5.  $x + 3 = 3 + x$

5. \_\_\_\_\_

6.  $4 \cdot (x \cdot 7) = (4 \cdot x) \cdot 7$

6. \_\_\_\_\_

7.  $7(x - 1) = 7x - 7$

7. \_\_\_\_\_

8.  $9 \cdot \frac{1}{9} = 1$

8. \_\_\_\_\_

Simplify.

9.  $(3 - 6)^2 + 12 - 10 \div 5$

9. \_\_\_\_\_

10.  $-5|3 - 7| \div (2 - 6) + 1$

10. \_\_\_\_\_

11.  $4^2 - 3(5 + 1) + |-6 - 3|$

11. \_\_\_\_\_

12.  $\frac{|5 - 12| - 2^4}{4(5 - 2) - 3}$

12. \_\_\_\_\_

13.  $\frac{|5(-4)| - \sqrt{132 - 51}}{-2^3 \cdot 11}$

13. \_\_\_\_\_

14.  $\frac{1}{2}(4x - 8y) - \frac{2}{3}(6x - 9y + 3)$

14. \_\_\_\_\_

# Chapter 1 Test Form A (cont.)

Name: \_\_\_\_\_

Evaluate each expression when  $m = -3$ ,  $n = 5$ , and  $p = 4$ .

15.  $2m - 3p^2$  15. \_\_\_\_\_

16.  $\frac{3m + n}{p}$  16. \_\_\_\_\_

Simplify. Write answers using positive exponents only.

17.  $(-4y)^{-2}$  17. \_\_\_\_\_

18.  $\frac{36x^{-4}y^3}{27x^{-7}y^5} \cdot \frac{x^3y^{-3}}{x^{-3}y^2}$  18. \_\_\_\_\_

19.  $\left(\frac{-x^2y^{-4}z}{xy^5}\right)^{-3}$  19. \_\_\_\_\_

20.  $a^{5t} \cdot a^{4t-3}$  20. \_\_\_\_\_

Write each number in scientific notation.

21. 87,000,000 21. \_\_\_\_\_

22. 0.0004070 22. \_\_\_\_\_

23. Use scientific notation to find the quotient  $\frac{(0.00058)(0.000098)}{0.00016}$ .  
Express the quotient in scientific notation. 23. \_\_\_\_\_

Write each statement as an equation.

24. The product of 3 and  $x$  is equal to the absolute value of the sum of  $x$  and 1. 24. \_\_\_\_\_

25. The sum of 7 and  $y$ , divided by 2, is equal to the difference of 3 and  $y$ , divided by 4. 25. \_\_\_\_\_

# Chapter 1 Test Form B

Name:

Date:

List the elements of the set  $\left\{-\sqrt{6}, 4, \frac{3}{4}, \sqrt{49}, -3\frac{2}{9}, -5.314, 0\right\}$  that are also elements of each given set.

- |                       |          |
|-----------------------|----------|
| 1. Whole numbers      | 1. _____ |
| 2. Rational numbers   | 2. _____ |
| 3. Integers           | 3. _____ |
| 4. Irrational numbers | 4. _____ |

Name the property illustrated.

- |  |          |
|--|----------|
| 5. $2(x - 4) = 2x - 8$                   | 5. _____ |
| 6. $4 + (x \cdot 7) = (x \cdot 7) + 4$   | 6. _____ |
| 7. $0 \cdot A = 0$                       | 7. _____ |
| 8. $\frac{14}{3} \cdot \frac{3}{14} = 1$ | 8. _____ |

Simplify.

- |  |           |
|--|-----------|
| 9. $5 - 2(2 + 4)^2 \div 24 - 9$                        | 9. _____  |
| 10. $\frac{ 3(-6)  - \sqrt{109 - 28}}{-3^3 \cdot 2^2}$ | 10. _____ |
| 11. $7 + 3\{2 + 3[6 - 4(-2)^2] \div 5 - 2\}$           | 11. _____ |
| 12. $\frac{ 8 - 15  + 2^5}{3(7 - 5)^2 + 1}$            | 12. _____ |

# Chapter 1 Test Form B (cont.)

Name: \_\_\_\_\_

Evaluate each expression when  $x = 2$ ,  $y = -4$ , and  $z = -6$ .

13.  $2xy - 3z^2$  13. \_\_\_\_\_

14.  $|x + z| + |x|^2$  14. \_\_\_\_\_

15.  $\frac{7x + y}{4z}$  15. \_\_\_\_\_

Simplify. Write answers using positive exponents only.

16.  $(-8x^{-3}y)^2$  16. \_\_\_\_\_

17.  $\frac{(2m^{-4}n^{-2})^{-3}}{2m^2n^3}$  17. \_\_\_\_\_

18.  $\left(\frac{-3ab^2}{a^2b}\right)^2 \left(\frac{-2ab}{5a^2}\right)^3$  18. \_\_\_\_\_

19.  $x^{7t} \cdot x^{3t+4}$  19. \_\_\_\_\_

Write each statement as an expression. Use  $x$  to represent the number.

20. The product of four and a number, decreased by seven 20. \_\_\_\_\_

21. The square of the difference of a number and twelve 21. \_\_\_\_\_

22. Write  $5.8 \times 10^{12}$  without exponents. 22. \_\_\_\_\_

23. Use scientific notation to find the quotient  $\frac{(0.0000024)(0.0072)}{0.000009}$ .  
Express the quotient in scientific notation. 23. \_\_\_\_\_

Simplify.

24.  $14x - 3(2x + 9) + 10x - 12$  24. \_\_\_\_\_

25.  $\frac{2}{3}(9y + 15) + 4x - 5(3y - 7x + 10)$  25. \_\_\_\_\_



# Chapter 1 Test Form C

Name:

Date:

Determine whether each statement is true or false if  $A = \{-2, 4, 8\}$ ,

$B = \{1, 3, 5, \dots\}$ , and  $C = \{x \mid x \text{ is an odd natural number}\}$ .

1.  $-8 \in A$

1. \_\_\_\_\_

2.  $23 \in B$

2. \_\_\_\_\_

3.  $B = C$

3. \_\_\_\_\_

Determine whether each statement is true or false.

4. Any number divided by zero is zero.

4. \_\_\_\_\_

5. The expression  $-x^2$  is positive for any real number.

5. \_\_\_\_\_

6. Every real number is also a rational number.

6. \_\_\_\_\_

Name the property illustrated.

7.  $5 \cdot (2 + x + y) = (2 + x + y) \cdot 5$

7. \_\_\_\_\_

8.  $1 \cdot \left(-\frac{4}{3}\right) = -\frac{4}{3}$

8. \_\_\_\_\_

9.  $16 - 7b = -7b + 16$

9. \_\_\_\_\_

Simplify.

10.  $2(-5) - 6^2$

10. \_\_\_\_\_

11.  $|4 - 6(10 - 3)| \div 2 + 6$

11. \_\_\_\_\_

12.  $\frac{5[-8 - 3(-2)^2]}{-2 - 6 \div 3}$

12. \_\_\_\_\_

13.  $\frac{1}{3}(9x - 6y + 12) - \frac{3}{5}(5x + 10y)$

13. \_\_\_\_\_

# Chapter 1 Test Form C (cont.)

Name: \_\_\_\_\_

Write each statement as an equation.

14. The opposite of the absolute value of  $x$  increased by ten is negative seventeen. 14. \_\_\_\_\_

15. Five less than the product of  $x$  and  $y$  is three more than the square of the sum of  $x$  and  $y$ . 15. \_\_\_\_\_

16. Eight more than the sum of  $n$  and five is three less than the product of  $n$  and six. 16. \_\_\_\_\_

Simplify. Write answers using positive exponents only.

17.  $\frac{-3^4 x^{-4}}{(y^{-6})^2}$  17. \_\_\_\_\_

18.  $\frac{25x^{-4}y^{-2}}{2x^2y^3} \cdot \frac{2x^2y^{-3}}{(5y^2)^2}$  18. \_\_\_\_\_

19.  $\left(\frac{2a^{-3}b^{-2}}{4a^2b^{-7}}\right)^{-4}$  19. \_\_\_\_\_

20.  $x^{4t} \cdot x^{6t-1}$  20. \_\_\_\_\_

Evaluate each expression when  $r = -5$ ,  $q = 2$ , and  $t = -1$ .

21.  $r^2 - 3rq + 5$  21. \_\_\_\_\_

22.  $-r + \frac{3}{4}q^3t + 2q$  22. \_\_\_\_\_

23. The expression  $2\pi r$  represents the circumference of a circle given the radius  $r$ . Find the circumference when  $r = 25$  centimeters. (Use 3.14 for  $\pi$ ) 23. \_\_\_\_\_

24. Write  $2.076 \times 10^{-8}$  without exponents. 24. \_\_\_\_\_

25. Write 29,430,000,000,000 in scientific notation. 25. \_\_\_\_\_

# Chapter 1 Test Form D

Name:

Date:

Determine whether each statement is true or false.

1.  $-8.6262 > -8.2626$  1. \_\_\_\_\_

2.  $-(-9)^2 = -9^2$  2. \_\_\_\_\_

3. All rational numbers are whole numbers. 3. \_\_\_\_\_

4. All whole numbers are integers. 4. \_\_\_\_\_

Write each statement as an equation.

5. The square of the difference of twice  $x$  and 3 is equal to 4. 5. \_\_\_\_\_

6. The product of nine and the square of the difference between  $x$  and one is equal to the quotient of  $x$  and five. 6. \_\_\_\_\_

Evaluate each expression when  $q = 3$ ,  $r = -2$ , and  $t = -1$ .

7.  $t(q^2 + r^2)$  7. \_\_\_\_\_

8.  $\frac{(q-t)^2 + r^2}{5q + 6r - t}$  8. \_\_\_\_\_

Name the property illustrated.

9.  $h \cdot 1 = h$  9. \_\_\_\_\_

10.  $2(x + 5) = 2(5 + x)$  10. \_\_\_\_\_

11.  $3(xy) = (3x)y$  11. \_\_\_\_\_

12. Find the additive inverse of  $-\frac{5}{7}$ . 12. \_\_\_\_\_

# Chapter 1 Test Form D (cont.)

Name: \_\_\_\_\_

Simplify.

13.  $1 - \left(\frac{2}{3}\right)^2$  13. \_\_\_\_\_

14.  $2 - 18 \div 3^2$  14. \_\_\_\_\_

15.  $|3 - 8|^3 - (-3 - 7)^2$  15. \_\_\_\_\_

16.  $(6 - 8)^2 - 2(7 - 2)$  16. \_\_\_\_\_

17.  $\frac{(11 - 13)^3 - 10}{5 - 16 \div 2 + 3}$  17. \_\_\_\_\_

18.  $\frac{2}{5}(5x + 10y - 15) - \frac{1}{3}(6x + 9)$  18. \_\_\_\_\_

Simplify. Write answers using positive exponents only.

19.  $2x^4y^{-3}(-3x^2y)^2$  19. \_\_\_\_\_

20.  $\left(\frac{2}{3}\right)^{-3}$  20. \_\_\_\_\_

21.  $\left(\frac{2x^{-4}y^3}{xy^2}\right)^{-2}$  21. \_\_\_\_\_

22.  $x^{5t} \cdot x^{2t+3}$  22. \_\_\_\_\_

Write each number in scientific notation.

23. 54,000,000 23. \_\_\_\_\_

24. 0.000730 24. \_\_\_\_\_

25. Use scientific notation to find the quotient  $\frac{(0.036)(0.00008)}{0.0064}$ .  
Express the quotient in scientific notation. 25. \_\_\_\_\_

# Chapter 1 Test Form E

Name:

Date:

Translate each statement into symbols.

- Six is less than or equal to eight.  
(a)  $6 < 8$                       (b)  $6 > 8$                       (c)  $6 \leq 8$                       (d)  $6 > 8$
- Eight less than four times a number is twelve. Use  $x$  to represent the number.  
(a)  $8 - 4x = 12$                       (b)  $4x - 8 = 12$                       (c)  $4x - 12 = 8$                       (d)  $12 - 8 = 4x$
- Which of the following is a rational number and a real number?  
(a)  $\sqrt{5}$                       (b)  $\pi$                       (c)  $-1.2$                       (d)  $\sqrt{3}$
- Which of the following would be inserted to make a true statement?  $-|-2| \underline{\hspace{1cm}} 2$   
(a)  $<$                       (b)  $>$                       (c)  $=$                       (d) none of these

Simplify.

- $-6 + 8 - 10$   
(a)  $-12$                       (b)  $8$                       (c)  $-8$                       (d)  $12$
- $-20 - 8$   
(a)  $-12$                       (b)  $12$                       (c)  $28$                       (d)  $-28$
- $(-2)(-3)(5)(4)$   
(a)  $120$                       (b)  $-100$                       (c)  $-120$                       (d)  $100$
- $0.6(-0.2)$   
(a)  $-1.2$                       (b)  $-0.12$                       (c)  $1.2$                       (d)  $0.12$
- $-\frac{3}{5} \div \frac{1}{3}$   
(a)  $-\frac{1}{5}$                       (b)  $\frac{9}{5}$                       (c)  $-\frac{9}{5}$                       (d)  $\frac{1}{5}$
- $-6 - (-4)$   
(a)  $-10$                       (b)  $10$                       (c)  $2$                       (d)  $-2$

## Chapter 1 Test Form E (cont.)

Name:

Simplify.

11.  $\frac{2^3 - 8}{6 + 2}$   
(a)  $-\frac{2}{3}$                       (b) 0                      (c) 8                      (d) undefined

12.  $\frac{4 + (-2)^2}{2^3}$   
(a) 1                      (b) 2                      (c) 0                      (d) undefined

13.  $6 + |-2| - 8$   
(a) 4                      (b) 16                      (c) 0                      (d) -4

14.  $\frac{20 - 2 \cdot 3}{5 + 2}$   
(a) 2                      (b)  $\frac{1}{2}$                       (c)  $\frac{17}{5}$                       (d) 1

15. Evaluate  $\frac{3x - y}{2x}$  when  $x = 2$  and  $y = 1$ .  
(a)  $\frac{5}{4}$                       (b) 5                      (c) -5                      (d) 0

16. Determine which of the following is a solution of the equation  $2x + 3 = x + 5$ .  
(a) -2                      (b) 1                      (c) 3                      (d) 2

Name the property illustrated.

17.  $7 \cdot 1 = 7$   
(a) Commutative Property                      (b) Identity Property  
(c) Associative Property                      (d) Distributive Property

18.  $8 + 0 = 8$   
(a) Commutative Property                      (b) Identity Property  
(c) Associative Property                      (d) Distributive Property

## Chapter 1 Test Form E (cont.)

Name:

19. Find the opposite or additive inverse of  $-\frac{2}{5}$ .

(a)  $-\frac{5}{2}$

(b)  $\frac{5}{2}$

(c)  $-\frac{2}{5}$

(d)  $\frac{2}{5}$

20. A stock fell  $1\frac{1}{8}$  points, rose  $\frac{1}{4}$  point, and fell  $\frac{3}{4}$  point. What was the overall change?

(a)  $+2\frac{1}{8}$

(b)  $-1\frac{5}{8}$

(c)  $-2\frac{1}{8}$

(d)  $\frac{5}{8}$

Simplify each expression.

21.  $11y - 9 - 2y + 7$

(a)  $13y - 2$

(b)  $13y - 16$

(c)  $9y - 16$

(d)  $9y - 2$

22.  $8.2x - 14 - 3.7x + 5.1$

(a)  $4.5x - 8.9$

(b)  $4.5x - 19.1$

(c)  $11.9x - 8.9$

(d)  $11.9x - 19.1$

23.  $8(3y - 5) - 6(5y - 2)$

(a)  $54y - 28$

(b)  $54y - 52$

(c)  $-6y - 28$

(d)  $-6y - 52$

24. Subtract  $9.2x - 14$  from  $7.6x - 3.7$ .

(a)  $-1.6x + 17.7$

(b)  $-1.6x + 10.3$

(c)  $16.8x + 17.7$

(d)  $16.8 + 10.3$

25. In  $3^4$ , the number 3 is called the \_\_\_\_\_.

(a) exponent

(b) solution

(c) variable

(d) base





# Chapter 1 Test Form F

Name:

Date:

Translate each statement into symbols.

- Three times a number subtracted from twenty is negative ten. Use  $x$  to represent the number.  
(a)  $3x - 20 = 10$       (b)  $20 - 3x = -10$       (c)  $-10 - 3x = 20$       (d)  $10 - 3x = -20$
- The absolute value of negative seven is less than or equal to nine.  
(a)  $-|7| \leq 9$       (b)  $-|7| \geq 9$       (c)  $|-7| \leq 9$       (d)  $|-7| \geq 9$
- Which of the following is a natural number, integer, rational number, and a real number?  
(a)  $-5$       (b)  $\frac{1}{2}$       (c)  $\sqrt{3}$       (d)  $6$
- Which of the following would be inserted to make a true statement?  $|-2| + 9$        $7$   
(a)  $>$       (b)  $<$       (c)  $=$       (d) none of these

Simplify.

- $(-3) + (-17)$   
(a)  $20$       (b)  $14$       (c)  $-20$       (d)  $-14$
- $-27 + 10$   
(a)  $37$       (b)  $-37$       (c)  $17$       (d)  $-17$
- $(0.4)(-0.5)$   
(a)  $-2.0$       (b)  $-0.2$       (c)  $-0.02$       (d)  $-20$
- $(-1)(-3)(-2)(7)$   
(a)  $-42$       (b)  $42$       (c)  $-48$       (d)  $48$
- $-\frac{2}{3} \div \frac{16}{27}$   
(a)  $-\frac{8}{9}$       (b)  $-\frac{9}{8}$       (c)  $-\frac{81}{32}$       (d)  $-\frac{32}{81}$
- $\frac{3^3 - 2^3}{3^2 - 2^2}$   
(a)  $1$       (b)  $-1$       (c)  $\frac{19}{5}$       (d)  $\frac{3}{2}$

## Chapter 1 Test Form F (cont.)

Name:

Simplify.

11.  $-6 + [(3 - 4) + 5]$

(a) 0

(b) 12

(c) -1

(d) -2

12.  $\frac{4 + (-1)^2}{(-1)^3 - 2}$

(a)  $-\frac{5}{3}$

(b) -3

(c) -5

(d) -1

13.  $6^2 - 4^2$

(a) 4

(b) 2

(c) 20

(d) -4

14.  $\frac{-8 + 2 \cdot 3}{-8 - 2 \cdot 3}$

(a)  $\frac{1}{7}$

(b)  $\frac{6}{5}$

(c)  $-\frac{1}{7}$

(d)  $-\frac{6}{5}$

15. Evaluate  $\frac{6 - y}{x + 6}$  when  $x = -1$  and  $y = -4$ .

(a)  $\frac{7}{2}$

(b) 2

(c)  $\frac{2}{5}$

(d) -2

16. Determine which of the following numbers is a solution of the equation  $6 + 5x = -x$ .

(a) -1

(b) 1

(c) 11

(d) -11

Name the property illustrated.

17.  $[4 + (-2)] - 3 = [(-2) + 4] - 3$

(a) Associative Property

(c) Commutative Property

(b) Distributive Property

(d) Identity Property

18.  $4(3 - 2) = 4(3) + 4(-2)$

(a) Associative Property

(c) Commutative Property

(b) Distributive Property

(d) Identity Property

## Chapter 1 Test Form F (cont.)

Name:

19. Find the reciprocal of  $-10$ .

(a) 10

(b)  $-10$

(c)  $\frac{1}{10}$

(d)  $-\frac{1}{10}$

20. The temperature at 5:00 was  $-2^\circ$  F. By 11:00, the temperature dropped 7 degrees. What was the temperature at 11:00?

(a)  $-5^\circ$  F

(b)  $-9^\circ$  F

(c)  $5^\circ$  F

(d)  $9^\circ$  F

Simplify each expression.

21.  $8x - 7 - 15x + 11$

(a)  $23x + 18$

(b)  $-23x - 18$

(c)  $7x - 4$

(d)  $-7x + 4$

22.  $10.2y - 9.1 - 3.6y + 5.2$

(a)  $6.6y - 3.9$

(b)  $6.6y + 3.9$

(c)  $13.8y - 14.3$

(d)  $13.8y + 14.3$

23.  $6(8x - 3) - 9(4 - x)$

(a)  $57x - 18$

(b)  $39x - 54$

(c)  $57x - 54$

(d)  $39x - 18$

24. Subtract  $6.3y - 5$  from  $2y + 1.3$ .

(a)  $4.3y - 6.3$

(b)  $-4.3y + 6.3$

(c)  $-4.3y - 3.7$

(d)  $4.3y + 3.7$

25. In  $3^4$ , the number 4 is called the \_\_\_\_\_.

(a) exponent

(b) solution

(c) variable

(d) base



# Chapter 2 Pretest Form A

Name:

Date:

Solve each equation.

1.  $8x - 2 = 78$

1. \_\_\_\_\_

2.  $5x + 9 = 7x - 3$

2. \_\_\_\_\_

3.  $\frac{3y}{2} + 1 = \frac{y}{2} - 4$

3. \_\_\_\_\_

4.  $2(3x + 5) = 12x + 9$

4. \_\_\_\_\_

5.  $|x + 2| + 3 = 8$

5. \_\_\_\_\_

6.  $|2x + 3| = |3x + 1|$

6. \_\_\_\_\_

Solve each equation for the specified variable.

7.  $4x - 2y = 8$  for  $y$

7. \_\_\_\_\_

8.  $C = 50n + 20$  for  $n$

8. \_\_\_\_\_

Solve each inequality. Write your answer in interval notation.

9.  $x - 1 \geq 3$

9. \_\_\_\_\_

10.  $\frac{5}{6}x < 15$

10. \_\_\_\_\_

11.  $-5(x - 1) \leq 10$

11. \_\_\_\_\_

## Chapter 2 Pretest Form A (cont.)

Name: \_\_\_\_\_

Solve each inequality. Write your answer in interval notation.

12.  $\frac{x+2}{7} + \frac{3-x}{6} \geq 1$

12. \_\_\_\_\_

13.  $x \leq -2$  and  $x \leq 5$

13. \_\_\_\_\_

14.  $x - 3 > -4$  and  $x + 1 < 9$

14. \_\_\_\_\_

15.  $2x - 5 < -11$  or  $5x + 1 \geq 6$

15. \_\_\_\_\_

16.  $|x+5| - 6 \leq -3$

16. \_\_\_\_\_

17.  $|x+2| > 5$

17. \_\_\_\_\_

Solve.

18. Find two numbers such that 4 less than twice the first number is 2 more than 4 times the second number, and the sum of two numbers is 9.

18. \_\_\_\_\_

19. Find 12% of 5000.

19. \_\_\_\_\_

20. Shayler left home at 10:00 a.m. and drove 250 miles. He arrived at his destination at 2:00 p.m. What was his average speed?

20. \_\_\_\_\_

# Chapter 2 Pretest Form B

Name:

Date:

Solve each equation.

1.  $8x - 4 = 28$

1. \_\_\_\_\_

2.  $4x + 1 = 2x - 7$

2. \_\_\_\_\_

3.  $2x + \frac{3}{4} = 9 - \frac{3}{4}x$

3. \_\_\_\_\_

4.  $4(x - 3) = -20$

4. \_\_\_\_\_

5.  $|x - 1| + 6 = 9$

5. \_\_\_\_\_

6.  $|x + 1| = |2x + 3|$

6. \_\_\_\_\_

Solve each equation for the specified variable.

7.  $3x + 5y = 15$  for  $y$

7. \_\_\_\_\_

8.  $E = \frac{1}{3}C + 10$  for  $C$

8. \_\_\_\_\_

Solve each inequality. Write your answer in interval notation.

9.  $x + 3 < 2$

9. \_\_\_\_\_

10.  $\frac{4}{5}x \geq 20$

10. \_\_\_\_\_

11.  $3(x - 2) \leq 5x - 8$

11. \_\_\_\_\_

## Chapter 2 Pretest Form B (cont.)

Name: \_\_\_\_\_

Solve each inequality. Write your answer in interval notation.

12.  $\frac{x+1}{4} + \frac{x-2}{3} \geq \frac{5}{2}$

12. \_\_\_\_\_

13.  $x \leq -4$  and  $x \leq 0$

13. \_\_\_\_\_

14.  $x + 5 > -4$  and  $x - 1 < -3$

14. \_\_\_\_\_

15.  $3x - 4 \geq 8$  or  $-2x + 1 > 5$

15. \_\_\_\_\_

16.  $|x - 1| - 10 \leq -7$

16. \_\_\_\_\_

17.  $|x - 2| > 6$

17. \_\_\_\_\_

Solve.

18. The sum of three consecutive integers is 57. Find the integers.

18. \_\_\_\_\_

19. Find 140% of 20.

19. \_\_\_\_\_

20. One-foot square floor tiles cost \$9 per dozen. How much would it cost to tile a rectangular floor measuring 24 feet by 15 feet?

20. \_\_\_\_\_



# Chapter 2 Test Form A

Name:

Date:

Solve each equation.

1.  $3(x+1) + x = 2(x+3)$  1. \_\_\_\_\_

2.  $5(2m-1) - 3m = 5 - 7m$  2. \_\_\_\_\_

3.  $6.5(2.5x-4) = -2.5(5x+5.34)$  3. \_\_\_\_\_

4.  $y(y-2) - 15 = y(y+5) - 3(y+5)$  4. \_\_\_\_\_

5.  $6x - \frac{2}{5} = \frac{3x}{4}$  5. \_\_\_\_\_

6.  $\frac{w+5}{2} - \frac{w}{3} = \frac{1}{2} + w$  6. \_\_\_\_\_

7.  $4|t+2| = 12$  7. \_\_\_\_\_

8.  $\left| \frac{2}{3}x + 5 \right| - 4 = 11$  8. \_\_\_\_\_

9.  $|5x-1| = |4x+3|$  9. \_\_\_\_\_

Solve each inequality. Write the solution set using interval notation.

10.  $2 - (x+5) \geq x+2$  10. \_\_\_\_\_

11.  $\frac{2}{5}x + \frac{1}{3} > x - 1$  11. \_\_\_\_\_

12.  $17 < 3a + 2 \leq 35$  12. \_\_\_\_\_

13.  $|2x+7| \geq 3$  13. \_\_\_\_\_

14.  $|6x-5| - 15 < -2$  14. \_\_\_\_\_