Name

Date_

Skills Test

Prerequisite Skills Test (continued)

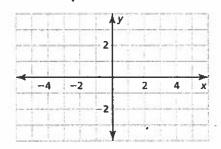
Evaluate the expression for the given value of x.

26.
$$-x - 12$$
; $x = 4$

27.
$$13 - 7x$$
; $x = -10$

27.
$$13 - 7x$$
; $x = -10$ **28.** $11x + 17$; $x = -6$

Plot the point in the coordinate plane. Describe the location of the point.

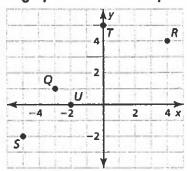


29.
$$A(4, 2)$$

30.
$$B(-1, 3)$$

31.
$$C(-5, -3)$$
 32. $D(3, 0)$

Use the graph to answer the question.



- **33.** Which ordered pair corresponds to point U?
- **34.** Which ordered pair corresponds to point S?
- 35. Which point is located in Quadrant II?

Solve the equation for y.

36.
$$2x - y = 3$$

37.
$$3x + 2y = -4$$

36.
$$2x - y = 3$$
 37. $3x + 2y = -4$ **38.** $-2x = 6y + 3$

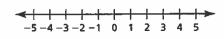
39.
$$0 = 7x - y + 12$$

40.
$$-2y + x = 4y - 6$$

Solve the inequality. Graph the solution.

41.
$$p + 6 > 9$$

42.
$$3x - 4 < 2$$



43.
$$-4m + 6 \le 22$$

44.
$$5x + 1 \le 3x - 9$$

Answers

- 30. _____
- 31. ____

- 34. _____

- 37.

- 40.
- - See left.
- - See left.
- - See left.

See left.

Chapters

Cumulative Test

1. Which equation does not belong with the other three?

A.
$$x + 3 = 7$$

B.
$$\frac{x}{2} = 2$$

C.
$$x - 5 = 9$$
 D. $4x = 16$

D.
$$4x = 16$$

2. Solve -8r = 56.

A.
$$r = 64$$

B.
$$r = -7$$

C.
$$r = 7$$

D.
$$r = -448$$

3. Solve $\frac{3}{5}x = 15$.

A.
$$x = 75$$

B.
$$x = 9$$

C.
$$x = 25$$

D.
$$x = 45$$

4. A basketball costs \$15.00. If the sales tax is 6%, which equation can be used to find the amount of tax?

A.
$$t = 0.06 \cdot 15$$

B.
$$0.06t = 15$$

C.
$$15 + 0.06 = 7$$

C.
$$15 + 0.06 = t$$
 D. $t = \frac{15}{0.06}$

5. If the volume of a cone is 24π cubic inches, which of the following are possible dimensions of the cone? Choose all that apply.

A.
$$r = 2$$

$$h = 4$$

B.
$$r = 3$$
 $h = 8$

C.
$$r = 6$$

$$h = 2$$

D.
$$d \approx 4$$

$$h = 18$$

6. Solve 12x + 2 = 26.

A.
$$x = 4\frac{1}{6}$$
 B. $x = 2\frac{1}{3}$ **C.** $x = 12$

B.
$$x = 2\frac{1}{3}$$

C.
$$x = 12$$

D.
$$x = 2$$

7. Solve 6(x-4) + x = 5(x-2).

A.
$$x = 17$$

B.
$$x = 7$$

C.
$$x = -7$$

Chapters 1-3

Cumulative Test (continued)

- 8. Translate the equation 4x 5 = 3(x + 2) into a verbal sentence.
 - A. Four times the difference of x and five equals three times the sum of x and two.
 - **B.** Four times x less than five is the same as three times x plus two.
 - **C.** The sum of four times x and five is three times the sum of x and two.
- **D.** The difference of four times x and five is three times the sum of x and two.
- 9. A boat travels upstream on the Allegheny River for 2 hours. The return trip only takes 1.7 hours because the boat travels 2.5 miles per hour faster downstream due to the current. How far does the boat travel one way?

A.
$$14\frac{1}{6}$$
 mi

C.
$$28\frac{1}{3}$$
 mi

10. Solve
$$\frac{1}{3}(6x + 30) = 4x + 2(x - 7)$$
.

A.
$$x = 6$$

B.
$$x = 11$$

C.
$$x = 4\frac{1}{4}$$

D.
$$x = -1$$

11. Solve
$$|3n + 6| = 21$$
.

A.
$$n = -5$$
 and $n = 5$

B.
$$n = -9$$
 and $n = 9$

C.
$$n = -9$$
 and $n = 5$

- 12. Translate $5x + 7 \ge 2$ into a verbal sentence.
 - A. Five times the sum of x and seven is greater than two.
 - B. Five times x, increased by seven, is less than or equal to two.
 - C. The product of five and x, increased by seven, is greater than or equal to two.
 - D. Seven more than the product of five and x is greater than two.