Practice C For use with pages 215–222 4.2

Decide which of the two points lies on the graph of the line.

1.
$$5x + y = 18$$

2.
$$7x - y = 10$$

3.
$$6y - 2x = 14$$

a.
$$(3,3)$$
 b. $(5,7)$

a.
$$(2,4)$$
 b. $(2,-4)$ **a.** $(4,5)$ **b.** $(5,4)$

Solve the equation for y.

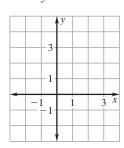
4.
$$-9x + 3y = 15$$

5.
$$x - 6y = 18$$

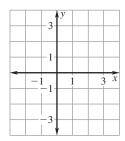
4.
$$-9x + 3y = 15$$
 5. $x - 6y = 18$ **6.** $2x - \frac{1}{4}y = 5$

Graph the equation.

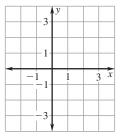
7.
$$4x - y = 1$$



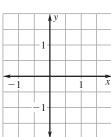
8.
$$10x - 5y = -5$$



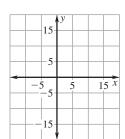
9.
$$x - 3y = 2$$



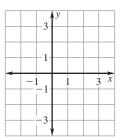
10.
$$y = -\frac{1}{2}$$



11.
$$x = 10$$

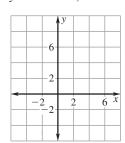


12.
$$5x - 2y = 0$$

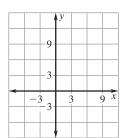


Graph the function with the given domain. Then identify the range of the function.

13.
$$y = 5x - 3$$
; domain: $x \ge 0$



14.
$$y = 6 - 4x$$
; domain: $x \le 0$

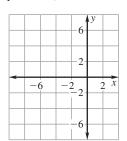


LESSON 4.2

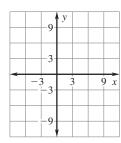
LESSON 4.2

Practice C continued

15. y = -2; domain: $x \le -3$



16. y = -2x + 5; domain: $-2 \le x \le 6$

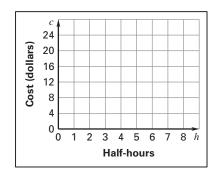


Identify the range of the function with the given domain.

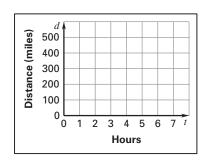
17.
$$4x + 3y = -10$$
; domain: $x > -1$

18.
$$3x - 6y = 12$$
; domain: $x < 1$

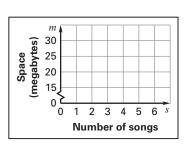
19. Paddle Boat Rental A rental shop at a lake rents paddle boats for \$3 for each half-hour. The total cost c (in dollars) for renting a paddle boat for h half-hours is given by the function c=3h. Once you get to the rental shop, you figure you can rent the paddle boat for at most 4 hours. Graph the function and identify its domain and range. What is the most that you will pay for renting a paddle boat?



20. Driving Home You are 420 miles from home and you are driving toward home at an average rate of 60 miles per hour. The distance d (in miles) away from home after t hours is given by the function d = 420 - 60t. Graph the function and identify the domain and the range. *Explain* how you determined the domain and range.



21. MP3 Player So far you have 5 songs stored on your MP3 player that take up 16 megabytes of space. The average song takes up about 3 megabytes of space. The number of megabytes of songs you can store on your player is given by the function m = 16 + 3s where s is the number of songs and m is the number of megabytes.



- **a.** Graph the function and identify its domain and range.
- **b.** Identify the domain and range if your MP3 player can store at most 256 megabytes of music. How does this change the appearance of the graph? *Explain*.
- **c.** Suppose your MP3 player can hold 512 megabytes of music. How do the domain and range of your function change?