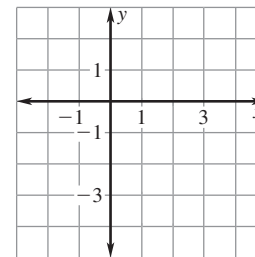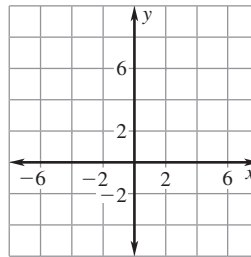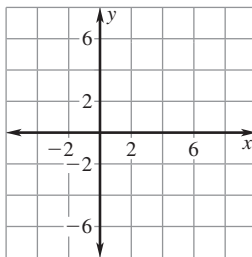Name _____ Date _____

Practice B
For use with pages 225–232

Find the *x*-intercept and the *y*-intercept of the graph of the equation.

1. $x + y = 1$

2. $x - y = -5$

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

4. $5x + 10y = 30$

5. $9y - 5x = 20$

6. $8x - 2y = 16$

7. $7x + 8y = 18$

8. $2y - 12x = -6$

9. $2x - 0.5y = 8$

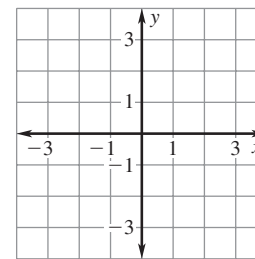**Draw the line that has the given intercepts.**

10. *x*-intercept: 5
  y-intercept: 4

11. *x*-intercept: -1
  y-intercept: 6

12. *x*-intercept: 2
  y-intercept: -3

Graph the equation. Label the points where the line crosses the axes.

13. $y = -x - 4$

14. $y = 6 + 3x$

15. $y = 8x - 7$
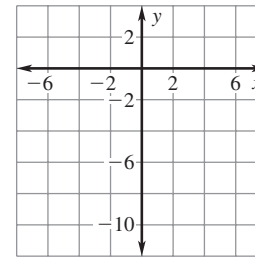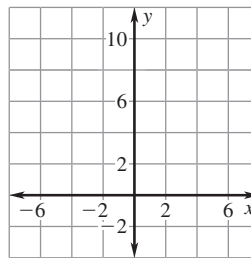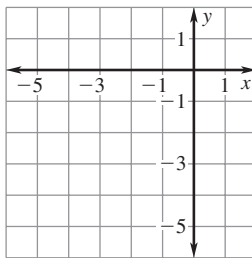
16. $y = 1 - 3x$

17. $7x - 7y = 42$

18. $3y + 2x = -5$
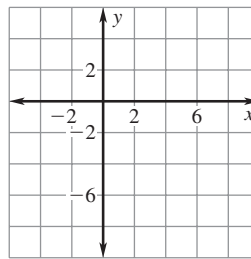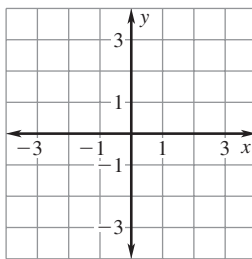
LESSON 4.3 **Practice B** *continued*
For use with pages 225–232

19. $4x - 9y = 16$
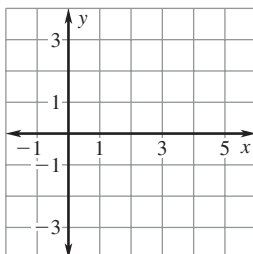
20. $y = 0.5x - 2$

21. $y = 3x + 0.2$

Match the equation with its intercepts.

22. $7y = 28 - 4x$

  A. *x*-intercept: 4

  y-intercept: −7

23. $7x = 4y + 28$

  B. *x*-intercept: −4

  y-intercept: 7

24. $4y = 7x + 28$

  C. *x*-intercept: 7

  y-intercept: 4

25. **Rabbit Hutch** The cage that you keep your rabbit in has a perimeter of 118 inches. Let *x* be the cage's width (in inches) and let *y* be its length (in inches).
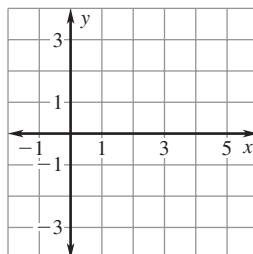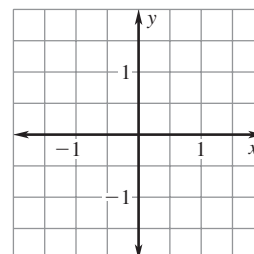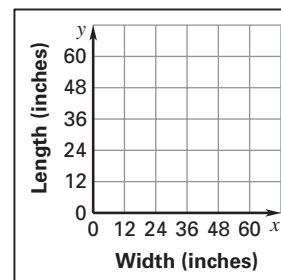
  a. Write an equation for the perimeter.

  b. Find the intercepts of the graph of the equation you wrote. Then graph the equation.

26. **Home and Garden Show** Admission to a home and garden show costs $7 per person during the week and $9 per person on the weekend. During one week of the show, a total of $142,506 was paid in admissions. This situation can be represented by the equation $7x + 9y = 142,506$ where *x* is the number of tickets sold during the week and *y* is the number of tickets sold on the weekend.

  a. Find the intercepts of the graph of the equation. Graph the equation.

  b. Give three possibilities for the number of each kind of ticket that could have been sold for the week.
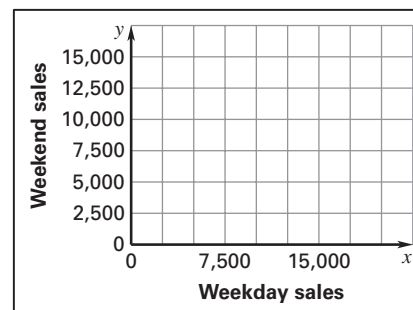
27. **Burning Calories** A man burns 10 calories per minute mountain biking and 7.5 calories per minute in-line skating. His goal is to burn approximately 420 calories daily. This situation can be represented by the equation $10x + 7.5y = 420$ where *x* is the number of minutes spent mountain biking and *y* is the number of minutes spent in-line skating.

  a. Find the intercepts of the graph of the equation. Graph the equation.

  b. What do the intercepts mean in this situation?

  c. What are three possible numbers of minutes of biking and skating the man could do to reach his goal?

Algebra 1

LESSON 4.3