**LESSON
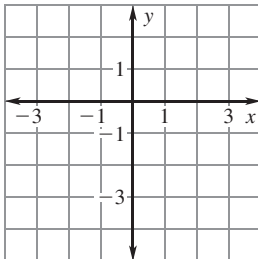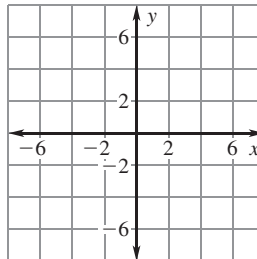9.3**

Practice C

For use with the lesson "Solve Quadratic Equations by Graphing"

Solve the equation by graphing.
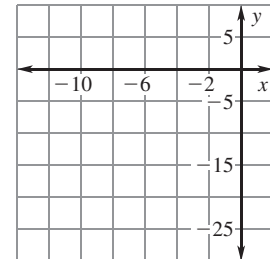
1. $x^2 = 4$

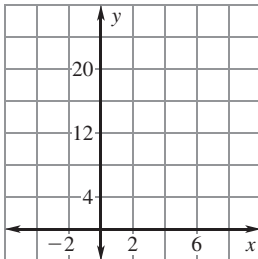**2.** $x^2 + 3x = 4$

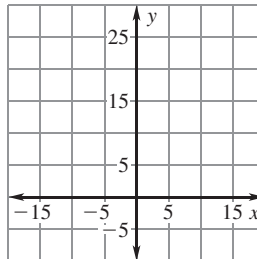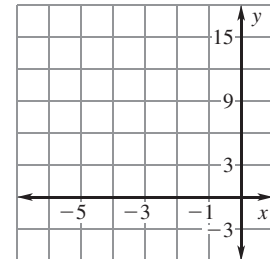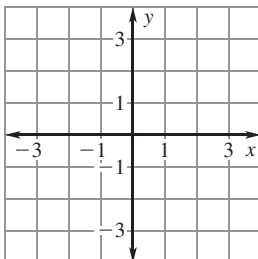**3.** $-x^2 - 14x - 49 = 0$
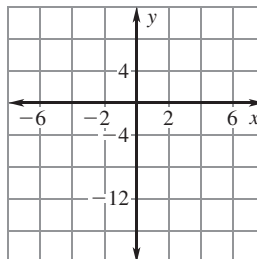
4. $-x^2 + 6x + 16 = 0$

5. $x^2 + 10x + 25 = 0$
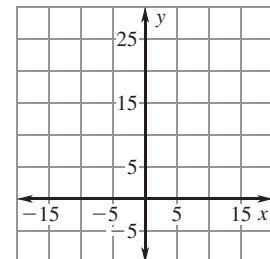
6. $x^2 + 8x + 15 = 0$
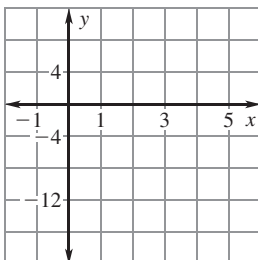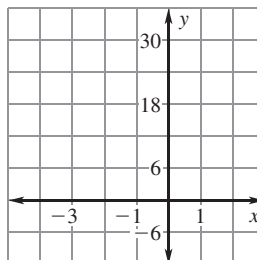
7. $x^2 + 2 = 0$

8. $x^2 = 4x + 12$

9. $-x^2 + 25 = 0$
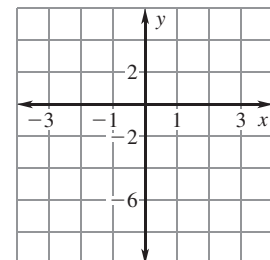
Find the zeros of the function by graphing.

10. $f(x) = 2x^2 - 8x - 10$

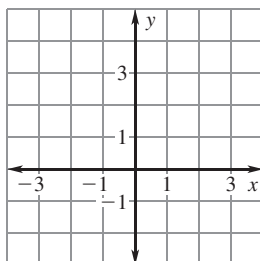**11.** $f(x) = -3x^2 - 6x + 24$
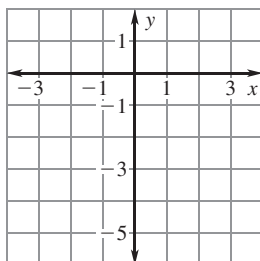
12. $f(x) = 4x^2 - 4x - 8$

Practice C

For use with the lesson "Solve Quadratic Equations by Graphing"

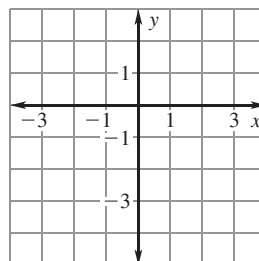**Approximate the zeros of the function to the nearest tenth by graphing.**
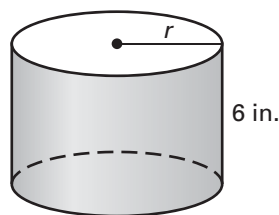
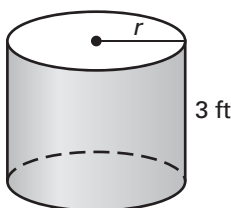**13.** $f(x) = -2x^2 + 5x + 1$

14. $f(x) = 3x^2 - 5$

15. $f(x) = 4x^2 - 3x - 4$

Use the given surface area *S* of the cylinder to find the radius *r* to the nearest tenth. (Use 3.14 for π.)
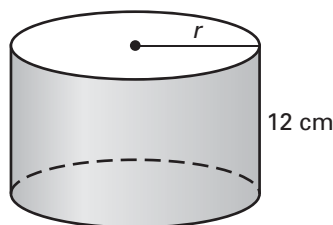
16. $S = 301$ in.^{2}

17. $S = 58$ ft^2

18. $S = 1356$ cm^2

6 in.

3 ft

12 cm

19. Jumping A cat jumps from a countertop 30 inches above the floor. It jumps with an initial vertical velocity of 5 feet per second.

   a. Write and graph a function that models the height *h* (in feet) of the cat *t* seconds after it jumps. *Explain* how you got your model.

   b. How far above the ground is the cat after one half of a second?

   c. How long does it take the cat to reach the ground?
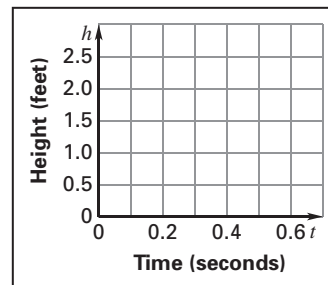
20. Basketball A basketball player throws a ball towards a hoop at a height of 6 feet with an initial vertical velocity of 50 feet per second.

   a. Write and graph a function that models the height *h* (in feet) of the ball *t* seconds after it is thrown.

   b. If the player misses the hoop completely and the ball lands on the ground, how long was the ball in the air?

   c. If an opposing player catches the ball at a height of 5 feet, how long was the ball in the air? *Explain* your reasoning.