

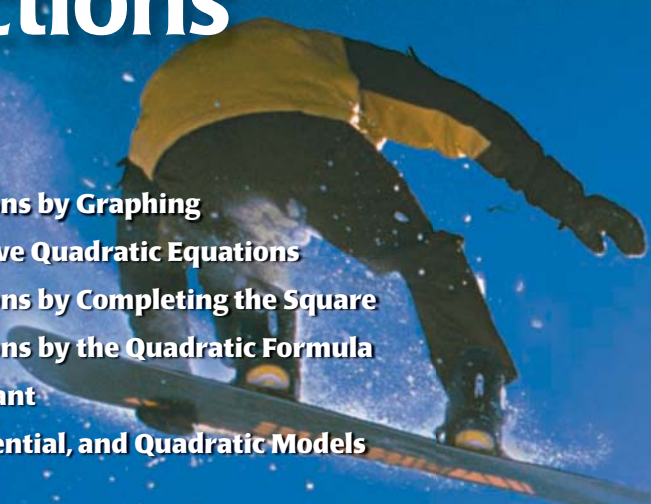
# 10

# Quadratic Equations and Functions



- A.2.A
- A.9.D
- A.10.A
- A.10.A
- A.10.A
- 2A.8.B
- 2A.8.B
- A.1.B

- 10.1 Graph  $y = ax^2 + c$
- 10.2 Graph  $y = ax^2 + bx + c$
- 10.3 Solve Quadratic Equations by Graphing
- 10.4 Use Square Roots to Solve Quadratic Equations
- 10.5 Solve Quadratic Equations by Completing the Square
- 10.6 Solve Quadratic Equations by the Quadratic Formula
- 10.7 Interpret the Discriminant
- 10.8 Compare Linear, Exponential, and Quadratic Models



## Before

In previous chapters, you learned the following skills, which you'll use in Chapter 10: reflecting points in a line and finding square roots.

## Prerequisite Skills

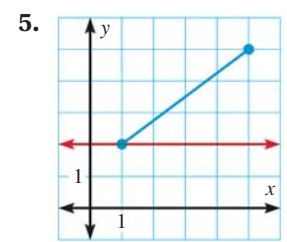
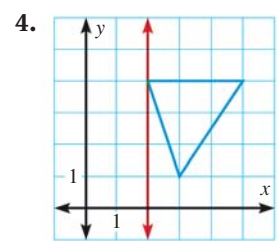
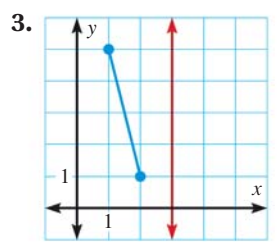
### VOCABULARY CHECK

Copy and complete the statement.

- The  $x$ -coordinate of a point where a graph crosses the  $x$ -axis is a(n) ?.
- A(n) ? is a function of the form  $y = a \cdot b^x$  where  $a \neq 0$ ,  $b > 0$ , and  $b \neq 1$ .

### SKILLS CHECK

Draw the blue figure. Then draw its image after a reflection in the red line. (Review p. 922 for 10.1–10.3.)



Evaluate the expression. (Review p. 110 for 10.4–10.6.)

- $\sqrt{81}$
- $-\sqrt{25}$
- $\sqrt{1}$
- $\pm\sqrt{64}$

