Now

In Chapter 4, you will apply the big ideas listed below and reviewed in the Chapter Summary on page 270. You will also use the key vocabulary listed below.

Big Ideas

1. **Graphing linear equations and functions using a variety of methods**
2. **Recognizing how changes in linear equations and functions affect their graphs**
3. **Using graphs of linear equations and functions to solve real-world problems**

KEY VOCABULARY

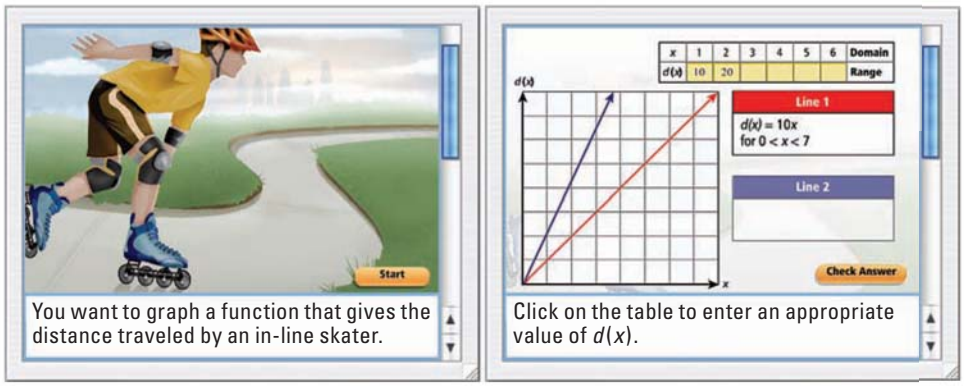
- quadrant, *p. 206*
- standard form of a linear equation, *p. 216*
- linear function, *p. 217*
- *x*-intercept, *p. 225*
- *y*-intercept, *p. 225*
- slope, *p. 235*
- rate of change, *p. 237*
- slope-intercept form, *p. 244*
- parallel, *p. 246*
- direct variation, *p. 253*
- constant of variation, *p. 253*
- function notation, *p. 262*
- family of functions, *p. 263*
- parent linear function, *p. 263*

Why?

You can graph linear functions to solve problems involving distance. For example, you can graph a linear function to find the time it takes and in-line skater to travel a particular distance at a particular speed.

Animated Algebra

The animation illustrated below for Exercise 41 on page 267 helps you answer this question: How can you graph a function that models the distance an in-line skater travels over time?



Animated Algebra at classzone.com

Other animations for Chapter 4: pages 207, 216, 226, 238, 245, and 254