

PREVIEW

What's the chapter about?

Chapter 5 is about writing **different forms of linear equations**. You'll learn

- three forms of linear equations.
- to write a linear equation given a slope and a point, or given two points.
- to write an equation of a line perpendicular to another line.
- to fit a line to data and use linear interpolation or linear extrapolation.

KEY VOCABULARY

► **Review**

- scatter plot, p. 204
- x-intercept, p. 218
- y-intercept, p. 218
- slope, p. 226

► **New**

- slope-intercept form, p. 273
- best-fitting line, p. 292
- correlation, p. 295
- point-slope form, p. 300
- standard form, p. 308
- linear interpolation, p. 318
- linear extrapolation, p. 318

PREPARE

Are you ready for the chapter?

SKILL REVIEW Do these exercises to review key skills that you'll apply in this chapter. See the given **reference page** if there is something you don't understand.

Solve the equation. (Review Example 3, p. 155)

1. $4(x + 8) = 20x$ 2. $2x + 2 = 3x - 8$ 3. $9a = 4a - 24 + a$

Plot the ordered pairs in a coordinate plane. (Review Example 1, p. 203)

4. $A(5, -7), B(-6, -8), C(-9, 0)$ 5. $A(8, -5), B(7, 3), C(-2, 0)$

Find the x-intercept and the y-intercept in the equation. Graph the line. (Review Example 2, p. 219)

6. $4x + 9y = 18$ 7. $-x - 5y = 15 + 2x$ 8. $-6x - 2y = 8$

STUDENT HELP

► **Study Tip**

"Student Help" boxes throughout the chapter give you study tips and tell you where to look for extra help in this book and on the Internet.

STUDY STRATEGY

Here's a study strategy!

Practice Test

Writing and taking a practice test are good ways to determine how ready you are for an actual test. Review the chapter. Create a test and exchange it with a classmate. After taking the tests, correct and discuss them. You should study any topics that gave you difficulty.