# **Systems of Equations** and Inequalities



A.8.C

A.1.D

7.1 Solve Linear Systems by Graphing

7.2 Solve Linear Systems by Substitution

7.3 Solve Linear Systems by Adding or Subtracting

7.4 Solve Linear Systems by Multiplying First

7.5 Solve Special Types of Linear Systems

7.6 Solve Systems of Linear Inequalities

## Before

In previous chapters, you learned the following skills, which you'll use in Chapter 7: graphing linear equations, solving equations, determining whether lines are parallel, and graphing linear inequalities in two variables.

## **Prerequisite Skills**

### **VOCABULARY CHECK**

Copy and complete the statement.

- 1. The least common multiple of 10 and 15 is \_?\_.
- **2.** Two lines in the same plane are \_?\_ if they do not intersect.

#### **SKILLS CHECK**

Graph the equation. (Review p. 225 for 7.1.)

3. 
$$x - y = 4$$

**4.** 
$$6x - y = -1$$

**5.** 
$$4x + 5y = 20$$

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 **6.**  $3x - 2y = -12$ 

Solve the equation. (Review p. 148 for 7.2-7.4.)

7. 
$$5m + 4 - m = 20$$

**8.** 
$$10(z+5)+z=6$$

Tell whether the graphs of the two equations are parallel lines. Explain your reasoning. (Review p. 244 for 7.5.)

**9.** 
$$y = 2x - 3$$
,  $y + 2x = -3$ 

**10.** 
$$y - 5x = -1, y - 5x = 1$$

**11.** 
$$y = x + 10, x - y = -9$$

**12.** 
$$6x - y = 4$$
,  $4x - y = 6$ 

Graph the inequality. (Review p. 405 for 7.6.)

13. 
$$y \le -2x + 1$$

**14.** 
$$x - y < 5$$

**15.** 
$$x \ge -4$$

**16.** 
$$y > 3$$

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