

Name \_\_\_\_\_

**10-6B Lesson Master****Questions on SPUR Objectives**

See pages 650–653 for objectives.

**PROPERTIES** Objective F

In 1–6, describe the graph of the given system as *intersecting lines*, *parallel lines*, or *coincident lines*.

1. 
$$\begin{cases} 2x - 3y = -18 \\ y = 4x + 16 \end{cases}$$

2. 
$$\begin{cases} 2x + 3y = 4 \\ -4x - 6y = 6 \end{cases}$$

3. 
$$\begin{cases} y = 5x \\ 4x - 5y = 0 \end{cases}$$

\_\_\_\_\_

4. 
$$\begin{cases} 2x + 6y = 12 \\ y = -\frac{1}{3}x + 2 \end{cases}$$

5. 
$$\begin{cases} \frac{y}{2} = \frac{5}{2}x - 3 \\ 10x - 2y = 4 \end{cases}$$

6. 
$$\begin{cases} 3x - 4y = 7 \\ y = \frac{3}{4}x - \frac{7}{4} \end{cases}$$

\_\_\_\_\_

7. Find the value of  $k$  so the graphs of the equations in the system  $\begin{cases} 4y - 2x = 12 \\ 2y = kx - 8 \end{cases}$  are parallel lines.

\_\_\_\_\_

8. Find the value of  $k$  so the graphs of the equations in the system  $\begin{cases} 4y + 3x = 1 \\ 12y = kx + 3 \end{cases}$  are coincident lines.

\_\_\_\_\_

9. *True or false.* If  $a = -10$ , the system  $\begin{cases} 4x - 5y = 6 \\ 8x + ay = 12 \end{cases}$  will have infinitely many solutions.

\_\_\_\_\_

10. *True or false.* If  $a = 3$ , the system  $\begin{cases} 2x + 2y = 3 \\ 4x + ay = 1 \end{cases}$  will have no solution.

\_\_\_\_\_

Name \_\_\_\_\_

**10-6B**

**page 2**

**USES** Objective G

11. During a recent store sale, all shirts were priced at \$15 each, and shoes were priced at \$15 per pair. Molly reported that they sold 19 items total, and Gus reported that they sold \$300 worth of merchandise. Can both Molly and Gus be correct? Explain.
- \_\_\_\_\_

12. Penny buys 2 cans of soup and 4 bags of grapes at the grocery store for \$16. Then she finds out they are having a 10% off sale on those items the next day. She returns the next day and buys 1 can of soup and 2 bags of grapes, and the clerk tells her that her total after the discount is \$8.10. Did the clerk calculate correctly?
- \_\_\_\_\_

**REPRESENTATIONS** Objective I

In 13–15, match each system of equations to its corresponding graph and state the number of solutions. Each system is graphed in the standard window.

13. 
$$\begin{cases} y - 3x = 0 \\ 3x - y = 3 \end{cases}$$

14. 
$$\begin{cases} x - y = 2 \\ 2x + y = 7 \end{cases}$$

15. 
$$\begin{cases} 2x + 3y = 6 \\ y = -\frac{2}{3}x + 2 \end{cases}$$

