

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. _____

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

