

Name _____

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

See pages 650–653 for objectives.

SKILLS Objective E

In 1–6, solve the system.

1.
$$\begin{cases} 4y = 9x^2 \\ y - x^2 = 10 \end{cases}$$

2.
$$\begin{cases} 3y = 2x^2 + 3 \\ 7x^2 + 2y = 4 \end{cases}$$

3.
$$\begin{cases} y = -x^2 + 6x - 9 \\ y = -x + 1 \end{cases}$$

4.
$$\begin{cases} y = x^2 + 6x + 7 \\ y = x + 1 \end{cases}$$

5.
$$\begin{cases} y = \frac{1}{2}(x - 3)^2 - 1 \\ y = 1 \end{cases}$$

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

In 7 and 8, *true or false*.7. The ordered pair $(-1, 5)$ is a solution to

the system
$$\begin{cases} y = 3 + 2x^2 \\ y = 2x + 3 \end{cases}$$

8. The ordered pair $(11, -3)$ is a solution to

the system
$$\begin{cases} x = y^2 + 2 \\ y = 2x - 25 \end{cases}$$

In 9 and 10, how many solutions does the system have?

9.
$$\begin{cases} y = x^2 - 6x + 11 \\ y = -x^2 + 6x - 7 \end{cases}$$

10.
$$\begin{cases} y = x^2 - 4x + 14 \\ y = x^2 + 10x + 23 \end{cases}$$

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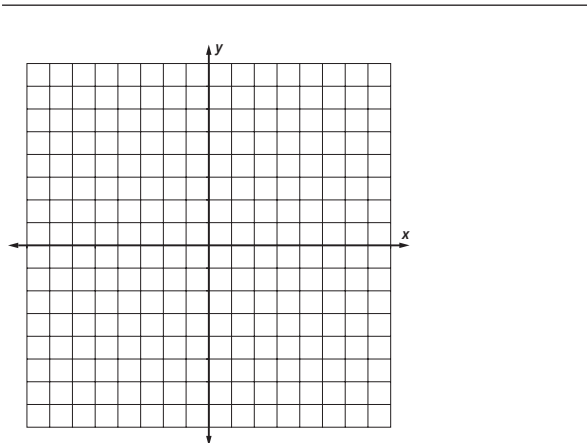
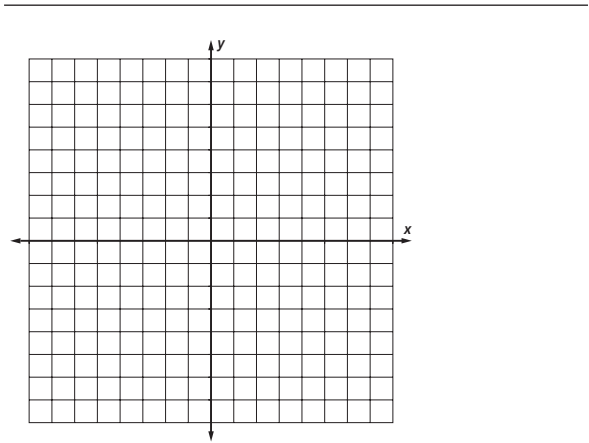
page 2

REPRESENTATIONS Objective I

In 11-14, solve the system by graphing.

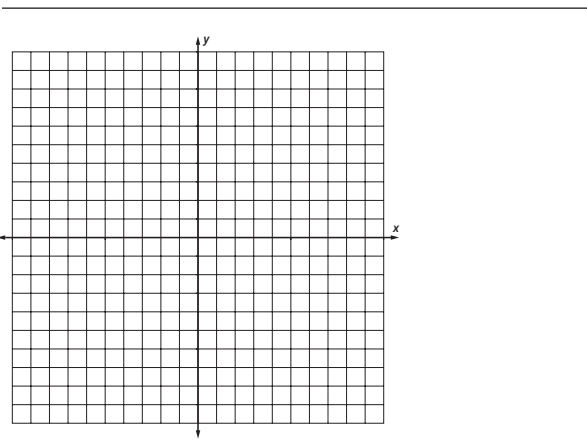
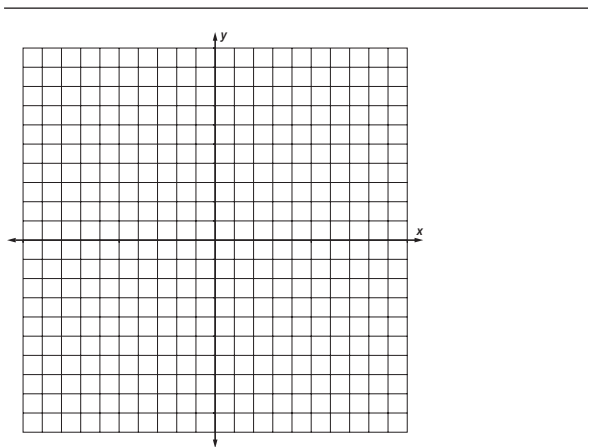
11. $\begin{cases} y = -x^2 + 3 \\ y = -2x + 3 \end{cases}$

12. $\begin{cases} y = 4 \\ y = x^2 + 6x + 12 \end{cases}$



13. $\begin{cases} y = x^2 - 4x + 4 \\ y = -\frac{1}{2}x + 1 \end{cases}$

14. $\begin{cases} y = x^2 + 3 \\ y = -x^2 + 8x - 12 \end{cases}$



15. Consider the graph of the system $\begin{cases} y = x^2 - 6x + 6 \\ y = -x^2 + 6x - 11 \end{cases}$ as shown to the right. Use the graph to approximate the solutions to the system.

