

## Chapter 3 Practice Quiz

Form G

Lessons 3-1 through 3-4

### Do you know HOW?

Solve each system of equations by graphing.

1. 
$$\begin{cases} y = -2x + 5 \\ x - y = 1 \end{cases}$$

2. 
$$\begin{cases} 2x + y = 10 \\ 3y = 2x + 6 \end{cases}$$

Solve each system of equations by substitution or elimination.

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

4. 
$$\begin{cases} 5x + y = 0 \\ -5x + 2y = 30 \end{cases}$$

5. 
$$\begin{cases} 2x + y - 11 = 0 \\ 3x - y = -1 \end{cases}$$

Solve each system of inequalities by graphing.

6. 
$$\begin{cases} 2x - 3y < 9 \\ x + y > -2 \end{cases}$$

7. 
$$\begin{cases} -x - y \geq 1 \\ y \leq -|x - 3| - 1 \end{cases}$$

8. Pump Up Gym has an initial joining fee of \$205 and monthly membership dues of \$15. Universe Gym has an initial joining fee of \$125 and monthly membership dues of \$19.
- When will the costs to join and maintain membership at the gyms be equal?
  - If you planned on continuing your gym membership for only 2 years, which gym would you join? Explain.

### Do you UNDERSTAND?

9. **Open-Ended** Write and solve a system of two inequalities by graphing.

10. **Error Analysis** Your teacher asked the class to graph the system of equations to find the solution. You turned in Graph A and said there were no solutions. Your friend turned in Graph B and said there were infinite solutions. Which of you is correct? What mistake was made?

$$\begin{cases} 3y = 6x - 12 \\ -5y = -10x - 20 \end{cases}$$

