4-3 Additional Practice

Solving Systems of Equations by Elimination

Use elimination to solve each system of equations.

1. $\begin{cases} x + y = 7 \\ x - y = -3 \end{cases}$

2. $\begin{cases} x - 2y = 10 \\ 3x + y = -12 \end{cases}$

3. $\begin{cases} 5x + 3y = 12 \\ x - 4y = 7 \end{cases}$

4. $\begin{cases} 6x + 2y = -12 \\ 4x + 3y = 7 \end{cases}$

5. $\begin{cases} 4x - 6y = 26 \\ 5x - 4y = 8 \end{cases}$

6. $\begin{cases} 5x + 3y = 13 \\ 7x + 8y = -16 \end{cases}$

Which solution method, graphing, substitution, or elimination, is the most appropriate for solving each system of equations? Explain.

7. $\begin{cases} 3x + 8y = -4 \\ 2x - 4y = 16 \end{cases}$

8. $\begin{cases} 6x - y = 16 \\ x = 4y - 5 \end{cases}$

9. $\begin{cases} x + y = 19 \\ 3x - 2y = -3 \end{cases}$

10. Determine whether the first system of equations is equivalent to the second system of equations. Explain.

$\begin{cases} 3x + 5y = 1 \\ 2x - 6y = 38 \end{cases}$ $\begin{cases} 18x + 30y = 6 \\ 10x - 30y = 190 \end{cases}$

11. The cost of 2 bottles of water and 4 apples is $5.50. The cost of 3 bottles of water and 5 apples is $7.50. Find the cost of one apple and the cost of one bottle of water.