

Solving Systems of Equations Review Sheet

Solve each equation for *both* variables using the indicated method. In other words, algebraically find a value for each variable such that both equations will be true. Show work on another piece of paper.

Solve these systems using substitution:

$$\begin{array}{l} 1) \quad y = 3x + 2 \\ \quad y = 5x - 8 \end{array}$$

$$\begin{array}{l} 2) \quad y = 3x + 4 \\ \quad y = -5x + 6 \end{array}$$

$$\begin{array}{l} 3) \quad y = -\frac{1}{2}x + 4 \\ \quad x = 4y - 8 \end{array}$$

$$\begin{array}{l} 4) \quad y = 4x - 3 \\ \quad 3x - 2y = 31 \end{array}$$

$$\begin{array}{l} 5) \quad 4x + 12y = 44 \\ \quad x - 6y = -25 \end{array}$$

$$\begin{array}{l} 6) \quad 2x + 3y = 4 \\ \quad 6x - 8y = 10 \end{array}$$

Solve these systems using elimination:

$$\begin{array}{l} 7) \quad 3x - 4y = 12 \\ \quad 3x + 4y = 18 \end{array}$$

$$\begin{array}{l} 8) \quad 2x + 3y = 7 \\ \quad 6x - 6y = 10 \end{array}$$

$$\begin{array}{l} 9) \quad 12x + 9y = 7 \\ \quad 3x + 5y = 10 \end{array}$$

$$\begin{array}{l} 10) \quad -4x + 6y = 12 \\ \quad 6x - 15y = 20 \end{array}$$

$$\begin{array}{l} 11) \quad 7x + 12y = 9 \\ \quad -6x - 10y = 10 \end{array}$$

$$\begin{array}{l} 12) \quad 5x - 2y = 8 \\ \quad y = 5x + 3 \end{array}$$

Solve these systems using any method:

$$\begin{array}{l} 13) \quad 5x - 7y = 15 \\ \quad x = 3 - 4y \end{array}$$

$$\begin{array}{l} 14) \quad 15x - y = 4 \\ \quad 20x + 3y = 13 \end{array}$$

$$\begin{array}{l} 15) \quad y = 12x + 4 \\ \quad y = -12x + 4 \end{array}$$

$$\begin{array}{l} 16) \quad y = 14x + 21 \\ \quad x - 3y = 20 \end{array}$$