

**Directions:** Solve each system using substitution. Write solutions as an ordered pair  $(x,y)$ . Write *no solution* or *infinite solutions* where appropriate. You must show all of your work for credit.

$$\begin{array}{l}
 y = 3x - 10 \\
 y = 2x - 5 \\
 3x - 10 = 2x - 5 \\
 -2x \quad = -2x \\
 \hline
 x - 10 = -5 \\
 +10 = +10 \\
 \hline
 x = 5 \\
 y = 3(5) - 10 \\
 y = 15 - 10 \\
 y = 5
 \end{array}$$

**SOLUTION =  $(5, 5)$**

$$\begin{array}{l}
 y = 5x - 10 \\
 y = -3x + 46 \\
 5x - 10 = -3x + 46 \\
 +3x \quad = +3x \\
 \hline
 8x - 10 = 46 \\
 +10 = +10 \\
 \hline
 8x = 56 \\
 \frac{8x}{8} = \frac{56}{8} \\
 x = 7
 \end{array}$$

**SOLUTION =  $(7, 25)$**