

Name Kry  
Mrs. Roubos

Date \_\_\_\_\_  
8R Period \_\_\_\_\_

Homework

Solve the following systems of equations algebraically for both variables and CHECK!

$$\begin{array}{l}
 1) \ y = 5x - 3 \\
 \quad y = -3x + 13 \\
 \hline
 5x - 3 = -3x + 13 \\
 +3x \quad +3x \\
 \hline
 8x - 3 = 13 \\
 +3 \quad +3 \\
 \hline
 8x = 16 \\
 \frac{8x}{8} = \frac{16}{8} \\
 \boxed{x = 2}
 \end{array}$$

$$\begin{array}{l}
 y = 5x - 3 \\
 y = 5(2) - 3 \\
 y = 10 - 3 \\
 \boxed{y = 7} \\
 \\
 \boxed{(2, 7)}
 \end{array}$$

$$\begin{array}{l}
 \text{check \#1} \\
 (2, 7) \\
 xy \\
 y = 5x - 3 \\
 7 = 5(2) - 3 \\
 7 = 10 - 3 \\
 7 = 7 \\
 \checkmark
 \end{array}$$

$$\begin{array}{l}
 \text{check \#2} \\
 (2, 7) \\
 xy \\
 y = -3x + 13 \\
 7 = -3(2) + 13 \\
 7 = -6 + 13 \\
 7 = 7 \\
 \checkmark
 \end{array}$$

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

$$\begin{array}{l}
 y = -2x - 1 \\
 y = -2(-1) - 1 \\
 y = 2 - 1 \\
 \boxed{y = 1} \\
 \\
 \boxed{(-1, 1)}
 \end{array}$$

$$\begin{array}{l}
 \text{check \#1} \\
 (-1, 1) \\
 xy \\
 y = -2x - 1 \\
 1 = -2(-1) - 1 \\
 1 = 2 - 1 \\
 1 = 1 \\
 \checkmark
 \end{array}$$

$$\begin{array}{l}
 \text{check \#2} \\
 (-1, 1) \\
 xy \\
 y = 2x + 3 \\
 1 = 2(-1) + 3 \\
 1 = -2 + 3 \\
 1 = 1 \\
 \checkmark
 \end{array}$$