

Name: _____

Solve using Gauss-Jordan Elimination:

$$4x - 8y = 28$$

$$3x + 5y = -1$$

$$\begin{array}{cc} x & y \\ \left[\begin{array}{cc|c} 4 & -8 & 28 \\ 3 & 5 & -1 \end{array} \right] \end{array}$$

$$\frac{R_1}{4} \left[\begin{array}{cc|c} 1 & -2 & 7 \\ 3 & 5 & -1 \end{array} \right]$$

$$R_2 - 3R_1 \left[\begin{array}{cc|c} 1 & -2 & 7 \\ 0 & 11 & -22 \end{array} \right]$$

$$\frac{R_2}{11} \left[\begin{array}{cc|c} 1 & -2 & 7 \\ 0 & 1 & -2 \end{array} \right]$$

$$R_1 + 2R_2 \left[\begin{array}{cc|c} 1 & 0 & 3 \\ 0 & 1 & -2 \end{array} \right]$$

$$x = 3$$

$$y = -2$$