

4.1

$$\begin{array}{r} 3x - 2y = 6 \\ + -2(x - y = 1) \\ \hline \end{array}$$

$$\begin{array}{r} 3x - 2y = 6 \\ -2x + 2y = -2 \\ \hline x = 4 \end{array}$$

$$3(4) - 2y = 6$$

$$-2y = -6$$

$$y = 3$$

$$(4, 3)$$

$$\begin{array}{l} 2(5x - 2y = 5) \\ \underline{-10x + 4y = 15} \end{array}$$

$$\begin{array}{l} \underline{10x - 4y = 10} \\ 0 \neq 25 \\ \text{inconsistent} \end{array}$$

$$\begin{array}{r} -3(x + y = 5) \\ + 3x - y = 3 \\ \hline \end{array}$$

$$(2, 3)$$

$$\begin{array}{r} -3x - 3y = -15 \\ 3x - y = 3 \\ \hline -4y = -12 \\ y = 3 \end{array}$$

$$6\left(\frac{1}{2}x + \frac{1}{3}y = 13\right)$$

$$20\left(\frac{2}{5}x + \frac{1}{4}y = 10\right)$$

$$-5(3x + 2y = 78)$$

$$2(8x + 5y = 200)$$

$$\begin{array}{r} -15x - 10y = -390 \\ + \quad 16x + 10y = 400 \\ \hline \end{array}$$

$$x = 10$$

$$\frac{10}{2} + \frac{1}{3}y = 13$$

$$\frac{1}{3}y = 8$$

$$(10, 24) \quad y = 24$$

$$\begin{array}{r} 2(3x - 2y = 6) \\ + \quad 6x - 4y = 12 \\ \hline \end{array}$$

$$\begin{array}{r} 6x - 4y = 12 \\ -6x + 4y = -12 \\ \hline 0 = 0 \end{array}$$