

Solving 2 X 2 System Assignment Examples

$$2) \begin{aligned} 5x + y &= 9 \\ -10x - 7y &= -18 \end{aligned}$$

$$\begin{array}{r} 10x - 7y = -18 \\ -10x - 2y = -18 \\ \hline -9y = -36 \end{array}$$

$$\begin{array}{r} -9 \\ -9 \\ \hline y = 4 \end{array}$$

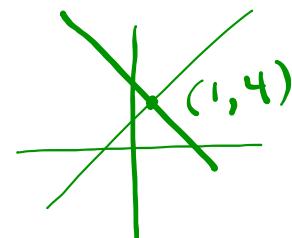
$$\begin{array}{l} 5(1) + 4 = 9 \checkmark \\ 10(1) - 7(4) = -18 \checkmark \end{array}$$

Elimination

$$5x + 4 = 9$$

$$5x = 5$$

$$x = 1$$



$$(1, 4)$$

Aug 1-9:07 AM

$$6) \begin{aligned} -5x + y &= -3 & 0 - 3 &= -3 & x = \underline{\hspace{2cm}} \\ 3x - 8y &= 24 & 0 + 24 &= 24 & y = \underline{\hspace{2cm}} \end{aligned}$$

$$3x - 8y = 24$$

Substitution

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

$$y = 5x - 3$$

$$y = 5(0) - 3$$

$$y = -3$$

$$3x - 8(5x - 3) = 24$$

$$3x - 40x + 24 = 24$$

$$-37x + 24 = 24$$

$$\begin{array}{r} -37x = 0 \\ -37 \\ \hline -37 \end{array}$$

$$x = 0$$

$$(0, -3)$$

Aug 1-9:57 AM