Solving 2 X 2 System Assignment Examples

$$-2)(5x + y) = 9(-2)$$

Elimination

$$10x - 7y = -18$$
$$-10x - 2y = -18$$

$$\frac{-9y}{-9} = \frac{-36}{-9}$$
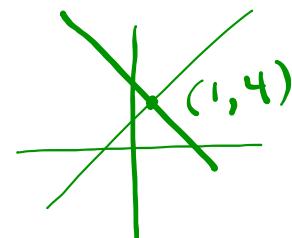
$$y = 4$$

$$5x + 4 = 9$$
$$5x = 5$$
$$x = 1$$

$$5(1) + 4 = 9 \checkmark$$
$$10(1) - 7(4) = -18 \checkmark$$

$$\boxed{(1,4)}$$

$(1,4)$

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$$6) \quad -5x \boxed{+ y} = -3 \quad 0 - 3 = -3 \quad x = \underline{\quad\quad}$$
$$3x - 8y = 24 \quad 0 + 24 = 24 \quad y = \underline{\quad\quad}$$

Substitution

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

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

$$3x - 8(5x - 3) = 24$$
$$3x - 40x + 24 = 24$$
$$-37x + 24 = 24$$
$$\frac{-37x}{-37} = \frac{0}{-37}$$
$$x = 0$$

$$\boxed{(0, -3)}$$

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