

Lesson 97 - Advanced Substitution

Practice Problem:

$$\begin{cases} 3x - 5y = 11 \\ 2x - 4y = -6 \end{cases} \Rightarrow \frac{2x}{2} = \frac{4y - 6}{2}$$

$$3(2y - 3) - 5y = 11$$

$$6y - 9 - 5y = 11$$

$$y = 20$$

$$x = 2y - 3$$

$$\begin{aligned} x &= 2 \cdot 20 - 3 \\ &= 37 \end{aligned}$$

$$(37, 20)$$