

# Substitution

$$\begin{aligned} \textcircled{3} \quad x &= 17 - 4y \\ y &= x - 2 \end{aligned} \rightarrow \begin{array}{r} 3 = x - 2 \\ +2 \quad +2 \\ \hline 5 = x \end{array}$$

$$y = (17 - 4y) - 2$$

$$17 - 4y - 2$$

$$y = 15 - 4y$$

$$\begin{array}{r} 4y \\ \hline 5y = 15 \\ \hline y = 3 \end{array}$$

$$(5, 3)$$

$$x = 16 - 4 \times 5$$

$$\textcircled{7} \quad x = 16 - 4y$$

$$x = 16 - 20$$

$$-8y = -40$$

$$3x + 4y = 8$$

$$x = -4$$

$$y = 5$$

$$3(16 - 4y) + 4y = 8$$

$$(-4, 5)$$

$$48 - 12y + 4y = 8$$

$$\begin{array}{r} 48 - 8y = 8 \\ -48 \quad -48 \\ \hline -8y = -40 \end{array}$$

$$\begin{array}{r} -8y = -40 \\ -8 \quad -8 \\ \hline y = 5 \end{array}$$

$$x = 17 - 4y$$

$$y = x - 2$$

$$y = 5 - 2$$

$$y = 3$$

5,3

$$x = 17 - 4(x - 2)$$

$$x = 17 - 4x + 8$$

$$x = 25 - 4x$$

$$+4x$$

$$5x = 25$$

$$\frac{5x}{5} = \frac{25}{5}$$

$$x = 5$$

5) \*  $x = y + 3$

$$x = -1 + 3$$

\*  $2x - y = 5$

$$x = 2$$

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

$$(2, -1)$$

$$2y + 6 - x = 5$$

$$y + 6 = 5$$

$$-6 \quad -6$$

$$y = -1$$

$$\underline{X = 16 - 4y} \longrightarrow X = 16 - 4(5)$$

$$3x + 4y = 8 \qquad \qquad \qquad 16 - 20$$

$$\qquad \qquad \qquad X = -4$$

$$3(16 - 4y) + 4y = 8$$

$$48 - 12y + 4y = 8$$

$$48 - 8y = 8$$

$$\begin{array}{r} -48 \qquad -48 \\ \hline \end{array}$$

$$\frac{-8y = -40}{-8 \quad -8} = 5$$

$$(-4, 5)$$

$$-5x + 3y = 51 \qquad -5x + 3(10x - 8) = 51$$

$$y = 10x - 8$$

$$-5x + 30x - 24 = 51$$

$$25x - 24 = 51$$

$$\begin{array}{r} +24 \quad +24 \\ \hline 25x = 75 \\ \hline 25 \quad 25 \end{array}$$

$$x = 3$$

$$y = 10 \cdot 3 - 8$$

$$30 - 8$$

$$21 \quad (3, 21)$$