

## SUBSTITUTION METHOD WORKSHEET

1)  $2x + 8y = 20$   
 $y = 2$

$$2x + 8(2) = 20$$

$$2x + 16 = 20$$

$$\begin{array}{r} -16 \\ \hline 2x = 4 \end{array}$$

$$\frac{2x}{2} = \frac{4}{2}$$

$$x = 2$$

$(2, 2)$

2)  $x = 5$   
 $2x + y = 10$

3)  $5x - 2y = 3$   
 $y = 2x$

$$5x - 2(2x) = 3$$

$$5x - 4x = 3$$

$$x = 3$$

$$y = 2(3)$$

$$y = 6$$

$(3, 6)$   
x y

4)  $2y + x = -15$   
 $x = 3y$

5)  $4x + 7y = 19$   
 $y = x + 9$

$$4x + 7(x + 9) = 19$$

$$4x + 7x + 63 = 19$$

$$11x + 63 = 19$$

$$\begin{array}{r} -63 \\ \hline 11x = -44 \end{array}$$

$$y = -4 + 9$$

$(-4, 5)$

$$\frac{11x}{11} = \frac{-44}{11}$$

$$x = -4$$

6)  $y = 6x + 11$   
 $2y - 4x = 14$

## SUBSTITUTION

$$\begin{cases} 2x + y = -1 \\ x = 2y - 13 \end{cases}$$

## SUBSTITUTION

$$\begin{cases} 4x - 3y = 15 \\ y = \frac{4}{3}x - 7 \end{cases}$$

## SUBSTITUTION

$$\begin{cases} y = -\frac{1}{2}x + 4 \\ x + 2y = 8 \end{cases}$$