

$-5x + 7y = 16$ find the solution of the equation. Under $x = 8$ find the value of y

Solution:

$$-5x + 7y = 16$$

Transform the initial equation:

$$-5x + 7y + 5x = 16 + 5x$$

$$7y = 16 + 5x$$

$$\frac{7y}{7} = \frac{16 + 5x}{7}$$

So,

$$y = \frac{5}{7}x + \frac{16}{7}$$

If $x = 8$, then

$$y = \frac{5}{7} \times 8 + \frac{16}{7} = \frac{40 + 16}{7} = 8$$

Answer: $y = \frac{5}{7}x + \frac{16}{7}$; $y = 8$