

1.

Write the equation of the line through the points $(0, 5)$ and $(3, 11)$

$$m = \frac{6}{3} = 2$$

$$y - 5 = 2(x - 0)$$

$$y - 5 = 2x$$

$$y = 2x + 5$$

2.

Write the equation of the line through the points $(1, 1)$ and $(-2, 10)$

$$m = \frac{9}{-2-1} = \frac{9}{-3} = -3$$

$$y - 1 = -3(x - 1)$$

$$y - 1 = -3x + 3$$

$$y = -3x + 4$$

3.

Write the equation of the line through the points $(-4, 2)$ and $(1, -3)$

$$m = \frac{-3-2}{1+4} = \frac{-5}{5} = -1$$

$$y - 2 = -1(x + 4)$$

$$y - 2 = -x - 4$$

$$y = -x - 2$$

4.

Write the equation of the line through the points $(2, 9)$ and $(0, 1)$

$$m = \frac{1-9}{0-2} = \frac{-8}{-2} = 4$$

$$y - 1 = 4(x - 0)$$

$$y - 1 = 4x$$

$$y = 4x + 1$$