Write an equation in slope-intercept form given two point

$$(4, -3)\ , (3, -6)$$

$$\left(\underbrace{4}_{x_1}, \underbrace{-3}_{y_1}\right), \left(\underbrace{3}_{x_2}, \underbrace{-6}_{y_2}\right)$$

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

$$m = \frac{-6 - (-3)}{3 - 4} = \frac{-6 + 3}{3 - 4} = \frac{-3}{-1} = 3$$

$$y - y_1 = m(x - x_1)$$

$$y - (-3) = 3(x - 4)$$

$$y + 3 = 3x - 12$$

$$y = 3x - 15$$