

Type IV -- Given 2 points

when this happens, you need to

calculate the slope using $m = \frac{y_2 - y_1}{x_2 - x_1}$

First label your points

$(x_1, y_1) \neq (x_2, y_2)$ then use them to find "m."

After that you can substitute "m" and (x_1, y_1) into the formula:

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

ex Line through $(2, 6)$ and $(-3, 1)$
 $x_1 \ y_1$ $x_2 \ y_2$
Label

substitute into formula: $m = \frac{1-6}{-3-2}$

$$m = \frac{-5}{-5} = 1$$

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

$$x_1 = 2$$

$$y_1 = 6$$

$$m = 1$$

$$y - 6 = 1(x - 2)$$

Equation