

Type II -- Given two points, one of which is the y-int.

when this happens, you need to calculate the slope. Label your 2 points  $(x_1, y_1)$  &  $(x_2, y_2)$  and substitute them into the slope formula:

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

Then substitute the y-int

and the slope into  $y = mx + b$

ex. Given:  $(3, 9)$  and  $(0, -2)$

First label  $\rightarrow$   $x_1, y_1$        $x_2, y_2$

Next substitute:  $m = \frac{-2 - 9}{0 - 3} = \frac{-11}{-3} = \frac{11}{3} = m$

Since  $(0, -2)$  is the y-int,  $b = -2$

Equation

$$y = \frac{11}{3}x - 2$$