

X
Intercept

$$\left(-\frac{B}{m}, 0\right)$$

Y
Intercept

$$(0, B)$$

Equation of
Line in
Slope-Intercept
Form

$$y = mx + B$$

Steps

- 1.) Plug in 0 for y and solve for x
- 2.) List as point

Steps

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Steps

- 1.) Find slope $\frac{y_2 - y_1}{x_2 - x_1} = m$
- 2.) For $y = mx + b$ pick 1 point plug in x, y, and m.
- 3.) solve for b

Ex: $2x + 3y = 6$
 $2(x) + 3(0) = 6$
 $\frac{2x}{2} = \frac{6}{2}$
 $x = 3$

Ex: $2x + 3y = 6$
 $2(0) + 3y = 6$
 $\frac{3y}{3} = \frac{6}{3}$
 $y = 2$

Ex: (3, 0) (0, 2)
 $m = \frac{2-0}{0-3} = \boxed{-\frac{2}{3}}$
 $y = mx + b$ pick (0, 2)
 $2 = (-\frac{2}{3})(0) + b$
 $\boxed{2 = b}$

(3, 0)

(0, 2)

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

1.) Plug in 0 for y and solve for x

2.) List as point

Ex: $2x + 3y = 6$

$$2(x) + 3(0) = 6$$

$$\frac{2x}{2} = \frac{6}{2}$$

$$x = 3$$

$(3, 0)$

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2.) List as point

2.)

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$$2(0) + 3y = 6$$

$$\frac{3y}{3} = \frac{6}{3}$$

$$y = 2$$

$(0, 2)$

Steps

1.) Find slope $\frac{y_2 - y_1}{x_2 - x_1} = m$

2.) For $y = mx + b$
pick 1 point plug in
 $x, y,$ and $m,$

3.) solve for b

Ex: $(3, 0)$ $(0, 2)$

$$m = \frac{2 - 0}{0 - 3} = \boxed{\frac{-2}{3}}$$

$y = mx + b$ pick $(0, 2)$

$$(2) = \left(\frac{-2}{3}\right)(0) + b$$

$$\boxed{2 = b}$$

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