

$$y = m x + b$$

slope y-intercept

How do you graph linear equations using the slope-intercept form of the equation?

Steps:

1. Rewrite equation in function form.
 $y = mx + b$
2. Identify the y-intercept.
"b"
3. Graph the y-intercept.
 $(0, b)$
4. Identify the slope.
 m
5. Use slope to plot more points (rise/run).
 $\frac{\text{rise}}{\text{run}}$
6. Draw line through the points.

Example:

$$-2x + 3y = -6 \quad (\text{solve for } y)$$

$$3y = 2x - 6$$

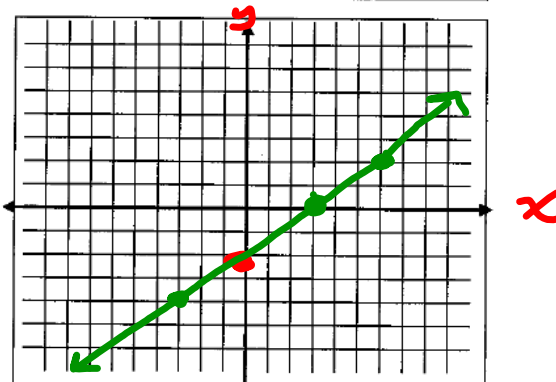
$$y = \frac{2}{3}x - 2$$

slope is

$$\frac{2}{3} \quad \left(\begin{array}{l} \text{up } 2 \\ \text{right } 3 \end{array} \right)$$

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

$$(0, -2)$$



You try...

$$y = mx + b$$

$$3x - 5y = 10$$

$$-5y = -3x + 10$$

$$y = \frac{3}{5}x - 2$$

slope $\frac{3}{5}$
(up 3, right 5)

$\frac{3}{5} \rightarrow$
down 3
left 5

