

Slope-Intercept Form p.81

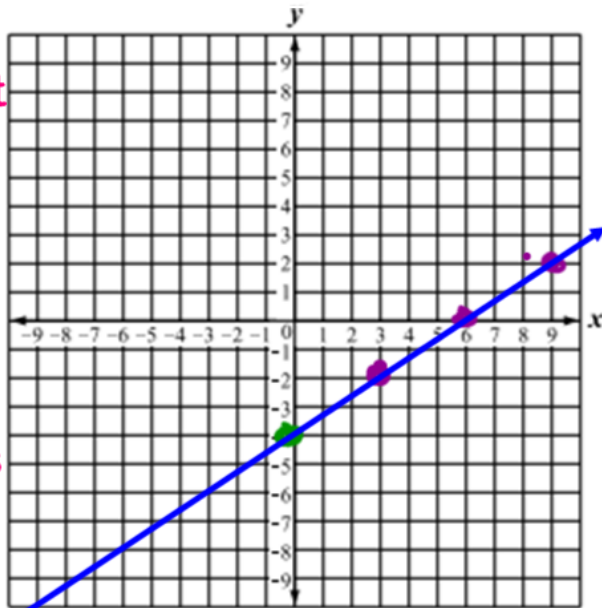
Equation: $y = mx + b$
 ↑ slope ← y-intercept

To Graph: $y = \frac{2}{3}x - 4$

1) Plot the y-intercept
 -4

2) Use the slope to plot additional points
 $\frac{2}{3} = \frac{\text{rise}}{\text{run}}$

3) Connect the points with a straight line
 extend the line across the graph



Point Test:

Is $(12, 4)$ on the line? **Yes!**

$$y = \frac{2}{3}x - 4$$

$$4 = \frac{2}{3}(12) - 4$$

$$4 = \frac{24}{3} - 4$$

$$4 = 8 - 4$$

$$4 = 4$$

Is $(-6, 10)$ on the line? **No!**

$$y = \frac{2}{3}x - 4$$

$$10 = \frac{2}{3}(-6) - 4$$

$$10 = \frac{-12}{3} - 4$$

$$10 = -4 - 4$$

$$10 \neq -8$$