

Slope Intercept Form

$$y = mx + b$$

m = slope of the line

b : y-intercept, $(0, b)$

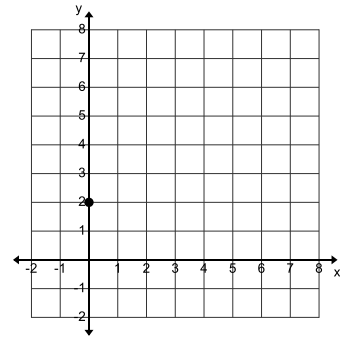
Example 1-Graph a Linear Equation

What is the graph of $y = \frac{4}{5}x + 2$?

The equation is in slope-intercept form. You can use the slope and y-intercept to graph the line.

Step 1: Identify the y-intercept of the equation.

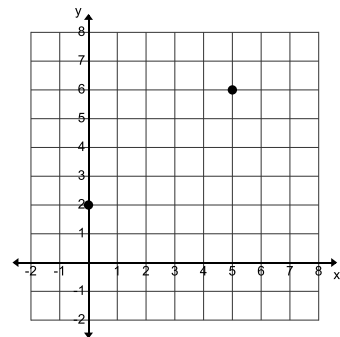
The y-intercept is 2, so plot the point $(0, 2)$



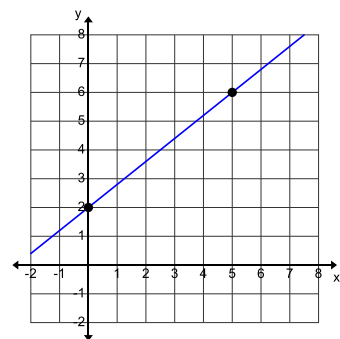
Step 2: Use the slope to plot a second point.

$$m = \frac{4}{5} = \frac{\text{vertical change}}{\text{horizontal change}}$$

Start at $(0, 2)$, move 4 units up and 5 units to the right to locate a second point.



Step 3: Draw a line through the points.



You Try!

Graph $y = \frac{3}{4}x - 5$

Slope: _____

Y-intercept: _____

