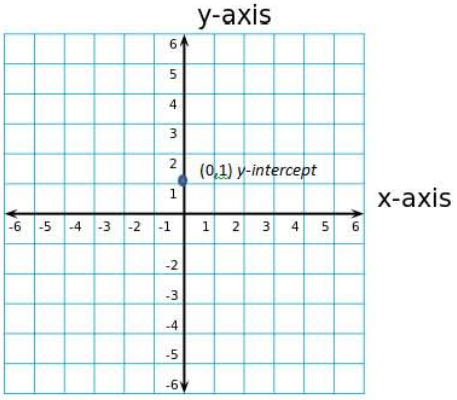
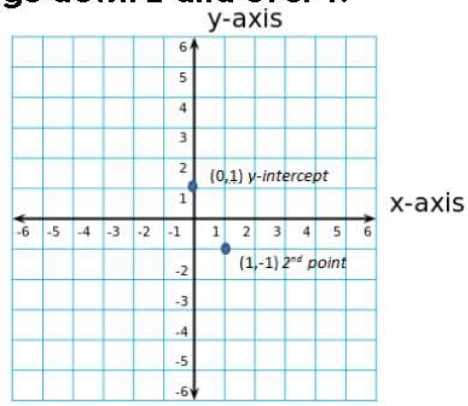
Graphing a line using slope and y-intercept, page 2

Let's look at another example, $y = -2x + 1$, and see what happens when our slope is negative. This linear equation is in slope-intercept form, so we have a slope of -2 and a y-intercept of (0 , 1). Since the slope is a whole number, we need to write it as a fraction so that we have both rise and run. We'll always leave the negative in the numerator to make it easier to graph, so our slope is $\frac{-2}{1}$. Now we are ready to graph the line:

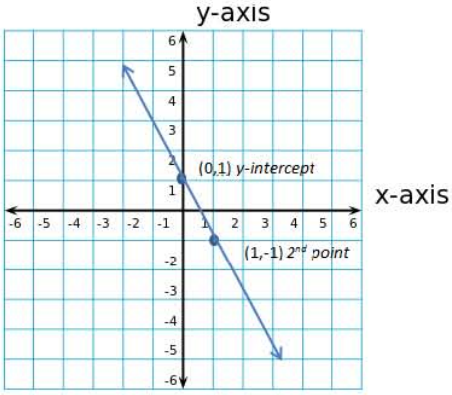
Step 1:
Find the y-intercept and place it on the graph.



Step 2:
Find the next point on the line by following the slope. Since the rise of the slope is negative, we move down the number of spaces in the numerator and over the number of spaces in the denominator. In this case, we go down 2 and over 1.



Step 3:
Now, draw a line through our 2 points to complete the graph. This is the graph for $y = -2x + 1$.



Remember....

You can graph a line if you have the y-intercept and the slope.

First, find the y-intercept on the graph.

Next, find the 2nd point on the line by using the slope; go up or down the number of spaces in the numerator and go over the number of spaces in the denominator.

Finally, draw the line through the two points.