Essential Questions: What is slope-intercept form? How is it used to graph a line?

**Do Now:** Using the intercept method, graph the following 2 equations and then complete the table below.

1. y + 3 = x2. x + 3y - 3 = 0



Original Equation	Slope	y-intercept	Equation in y = mx + b form
<i>y</i> + 3 = <i>x</i>			
<i>x</i> + 3 <i>y</i> - 3 = 0			

## **SLOPE-INTERCEPT FORM OF AN EQUATION**

## $y = \mathbf{m}x + \mathbf{b}$

Graphing Equations using the Slope-Intercept Method

- 1. Put the equation in "y = mx + b" form if it is not already.
- 2. Start by plotting the y-intercept (0, b) as your first point.
- 3. Use the slope  $\frac{rise}{run}$  (m) to plot your next point.
- 4. Draw a line through the two points.

**Example:** Graph 3x + y = 2 using the slope-intercept method.



On a piece of graph paper, graph the following equations using the slope-intercept method.

1. 
$$y = -\frac{4}{5}x + 3$$
 2.  $2x + 8 = 4y$  3.  $x + y = -1$  4.  $-2x + 8 = 4y$