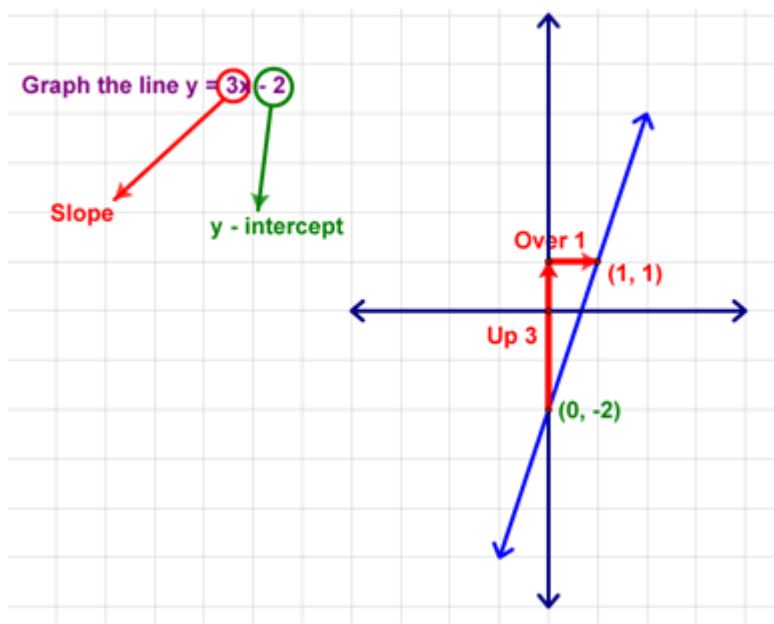




## Graphing Equations - Lesson 13-1

Today we reviewed how to graph lines. This should be really easy for you. Remember  $y = mx + b$ !!



This leads to Theorem 118...something that should be pretty familiar to you:

**Theorem 118:**

**The y-form or slope-intercept form, of the equation of a nonvertical line is**

$$y = mx + b$$

**where  $b$  is the y-intercept of the line and  $m$  is the slope of the line.**

Now, there are a number of things we can do once we have the equation of a line. We can determine its x and y-intercepts, we can determine its slope (the change in y (vertical movement) relative to changes in x (horizontal movement)), and we can determine if a given point in (x,y) form is on the line (e.g., if a line's equation is  $y = 4x - 2$ , does the point (4,3) lie on that line?).