

Name: _____

Pre-Assessment: Modeling with Quadratics - Answer Key

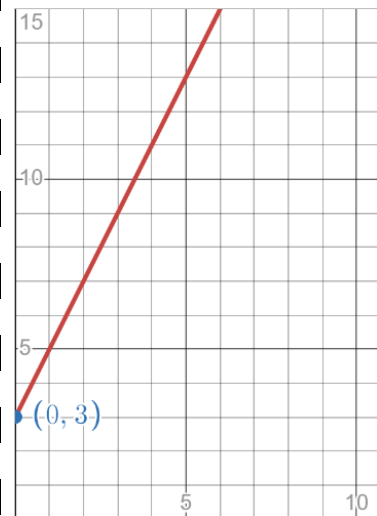
Before we learn more about modeling with Quadratic Functions, we need to make sure we are ready to interpret graphs and functions for linear models. The following description, function and graph all describe the same situation.

I had a little bit of money at the start of this week. I am making and selling friendship bracelets to earn extra money.

$$f(x) = 3 + 2x$$

x stands for the number of bracelets sold this week

$f(x)$ stands for the total amount of money I have



Answer the following questions about the key features of the situation:

What is the y-intercept of the line? **3 (or (0, 3))** (the place where the line crosses the y-axis)

What is the slope of the line? **2** (up 2 squares for every one square to the right)

How much money did I have at the start of the week? **\$3** How can you tell? **The y-intercept is the starting value on the graph (when the x , or number of bracelets sold, was 0).**

How much do I earn for each friendship bracelet? **\$2** How can you tell? **The slope is the rate of change, or how much more money increases for each bracelet I sell.**

How much money will I have after I see 5 bracelets? **\$13** How can you tell? **If I go to 5 on the x -axis (how many bracelets I sell), the y -value of the line is 13.**