**Name(s): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Y = m*x* + b**

Use Wolfram Demonstrations Project to answer the following questions.​

1. In your own words explain what a slope is. Give examples. This addresses Learning Target #4.
2. In your own words what is a y-intercept. Give examples. This addresses Learning Target #4.
3. What is a linear equation? This addresses Learning Target #5.
4. What roles do the slope and the y-intercept play in a linear equation? This addresses Learning Target #5.
5. What is the y-intercept and the slope to a linear function with the points (3,2) and (5,6)? Explain how you reached your answer? This addresses Learning Target #1.

y=2x-4

1. If the slope of a linear function is 4 and the y-intercept is (0,2) what is the equation of the linear equation? This addresses Learning Target #3.

y=4x+2

1. What happens to the appearance of the line when the slope of the linear equation changes to -4? This addresses Learning Target #2.
   1. What if the y-intercept changed to -2? This addresses Learning Target #2.
2. Given that the slope of a linear equation is -2/3 and the y-intercept is 5, what is another point on this linear equation? Explain how you came to your answer. This addresses Learning Target #3.

(3,3)

1. What is the linear equation to a line with the slope 1/2 and the y-intercept 3? This addresses Learning Target #3.

y=.5x+3

1. What is the linear equation to a line with the slope 2/14 and the y-intercept 3? This addresses Learning Target #3.

y=.5x+3

1. Did you notice anything about the answers for 7 & 8? If so, why do you think that occurred? This addresses Learning Target #2.