Lesson 2-6

For this investigation please do all work and answer all questions **on another sheet of paper**.

To start graph the function . Use a calculator if you would like. Now what happens when you add 1 to the function? That would be graphing . What happens when you add 2? What about 3? What happens when you subtract 1? Subtract 2? Can you generalize? What happens when you add or subtract to the end of a function?

Now start with the function . What happens when you add 1 to the x value? Therefore graphing . What happens when you add 2 to the x value? 3? What happens when you subtract 1 from the x value? Subtract 2? Can you generalize? What happens when you add or subtract from the x value?

Again start with the function . What happens when you take the opposite sign of the x value? Graphing ? Try other functions. Generalize what happens when you take the opposite sign of the x value. Use both positive and negative slopes.

Now start with the function . What happens when you put an opposite of the entire function? Graphing . Try with other functions. Generalize what happens when you take the opposite sign of the entire function. Use both positive and negative slopes.

