26 SQUARES: ACTIVITY #2

Date: _____

1) Complete the table of values for Perimeter vs Side Length.

2) Complete the table of values for Area vs Side Length.

3) In the table write down the patterns.

4) Graph the data on graph paper.

-Graph perimeter vs length on one grid; area vs length on another grid

-Length will be the independent variable (*x*) while perimeter and area will be dependent variables (*y*)

SIDE LENGTH	PERIMETER	Pattern	SIDE LENGTH	AREA	Pattern	Pattern within the Pattern
1	4		1	1	3	
2	8		2	4	5	
3	12		3	9		
4			4			
5			5			
6			6			

3) Is there a formula that relates side length of a square and the perimeter of the square? What is it?

4) What is the significance of the number in your perimeter formula?

5) Is there a formula that relates side length and the area of the square? What is it?

Follow-up Questions: Complete each of the following. Show your work.

1. If a square has side length 50, what is the perimeter?

2. If a square has perimeter 248, what is the side length?

3. If a square has side length 43, what is the area?

4. If a square has area 6084, what is the side length?

5. If a square has perimeter 388, what is the area?

6. If a square has area 6400, what is the perimeter?

Video Lesson:

-Check out Mr. Stewart's YouTube channel for a follow-up video on "Linear vs Quadratic Relationships". The link to the video will be posted in the <u>course calendar</u>.