Activity 1: Encountering Perfect Squares

Unit 3: Powers and Exponents
NAME: _____
NAME OF PARTNER:_____

1.Use your Geo-board and rubber bands, or the Geo-board iPad app to model each square and complete the table below. Take pictures of three of the squares you made with your iPad (either through the camera or by screen shots). You will use these pictures for question #5.

Side Length	**Area**	**Perimeter**
2 units		
		12 units
4 units		
5 units		
	36 units^2	
	49 units^2	
		32 units
	81 units^2	
x units		
	y units^2	

2. A number is called a "perfect square" if it *represents the area of a square whose side length is a whole number.* For example, 25 is a perfect square, because 25 square units represents the area of a square with a side length of 5 units. From this information, determine which column above shows perfect squares and explain how you determined that.

3. If you know the side length of a square, how can you find its area *without* a geoboard?

4. If you know the area of a square, how could you find the side length *without* a geoboard?

5. BLOG: Go onto either you or your partners blog (blog used:_____). Upload all three pictures onto a new blog post titled *"Encountering Perfect Squares".* I want you to complete the following for EACH PICTURE:

- State the side length of the square (units), area of the square (units^2) and the square root of the area.
- Explain how you determined the square root of the area by looking at the picture and tell me the value of the square root.