

## Problem 2.1

**Part A** Fill in the table below.

1.

2. The table starts at 2 instead of 0 or 1 because if it started any smaller than the width would be a \_\_\_\_\_ number.

3. The new areas are all \_\_\_\_\_ than the original areas. Therefore, \_\_\_\_\_ trade was a good one.

**Part B**

1. An equation for the relationship between the side length and the original area is  $A =$

2. An equation for the relationship between the side length and the new area is  $A =$

3. Below are 2 expressions for the area of the new lot

- 
- 

**Part C**

Use your graphing calculator to sketch the area equations for both lots. For  $x$  set your window from -10 to 10 and for  $y$  set the window from -10 to 30.

Frogs, Fleas and Painted Cubes

1.

2. Which part of the graph makes sense for the area of the different lots?

3. How are the 2 graphs the same?

How are the 2 graphs different?

**Part D**

These relationships are/are not quadratic because \_\_\_\_\_  
\_\_\_\_\_.