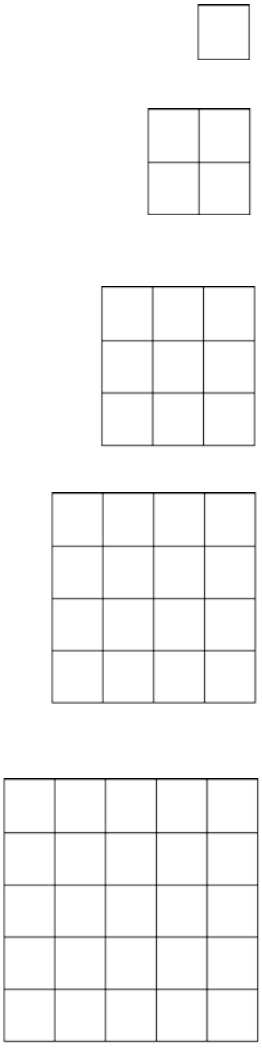
Math 10-C Entire & Mixed Radicals Investigation **Name: _____**

1. Complete the table below given the information provided.

   Each of the small squares below have an area of 2. The first one is completed for you.



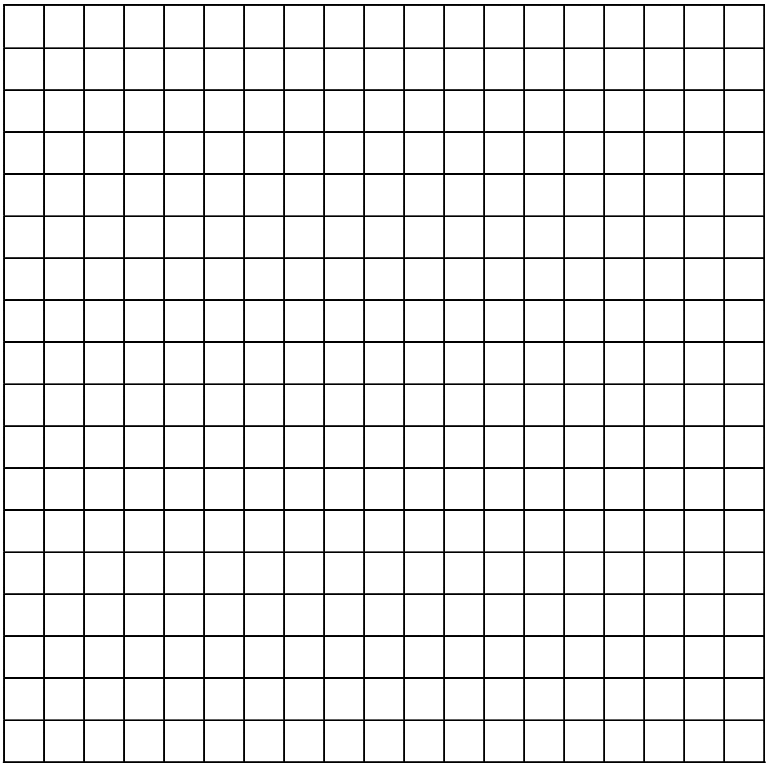
Total Area	**Side Length** (written as an entire radical)	**Side Length** (written as a multiple of $\sqrt{2}$)
2 units^2	$\sqrt{2}$	$1\sqrt{2}$

Looking at the completed table we can see that there are two different ways to represent the 'Side Length'. Describe the relationship between the two side length columns (think factors).

Continued on back…

Use the method and relationship from the previous page to determine the second way to write the length of the sides using radicals. Grids are provided below in case you choose to sketch out the squares.

Side Length *(written as a multiple of $\sqrt{3}$)*	***Side Length*** *(written as an entire radical)*
$2\sqrt{3}$	
$3\sqrt{3}$	
$4\sqrt{3}$	
$5\sqrt{3}$	



Side Length *(written as a multiple of $\sqrt{5}$)*	***Side Length*** *(written as an entire radical)*
$2\sqrt{5}$	
$3\sqrt{5}$	
$4\sqrt{5}$	
$5\sqrt{5}$