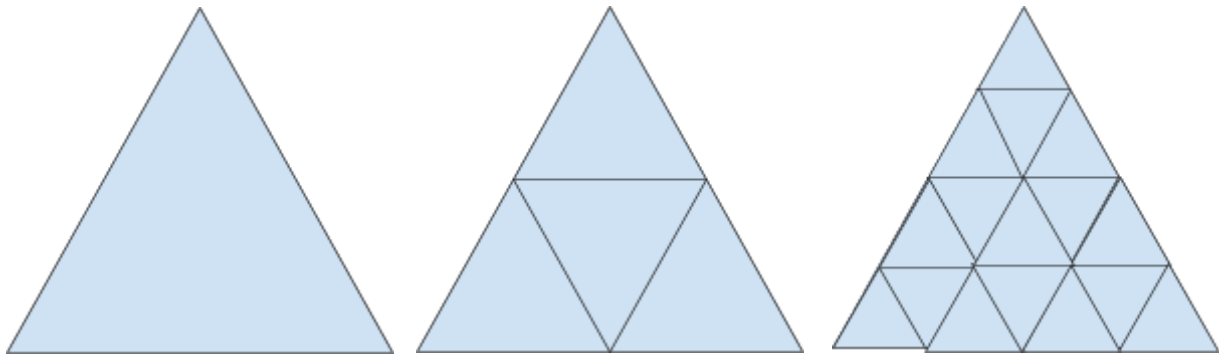


Name: _____

Pre-Assessment: Logarithmic Functions

- Below is a pattern showing a triangle being successfully split into four similar triangles at each step.



Step 0 ($n=0$)

Step 1 ($n=1$)

Step 2 ($n=2$)

- If n is the step number, how many of the smallest triangles are there when n is 4? What about when n is 8?
- At some step n , there are 1,048,576 smallest triangles.
 - Write an equation to represent the relationship between the step n and the number of triangles in step n .

- b. Explain how you might find the value of that step number.