

Name:

**Verbal Description**

Chris used triangles to make the first four steps of a pattern, as shown below.



The pattern continues to grow.

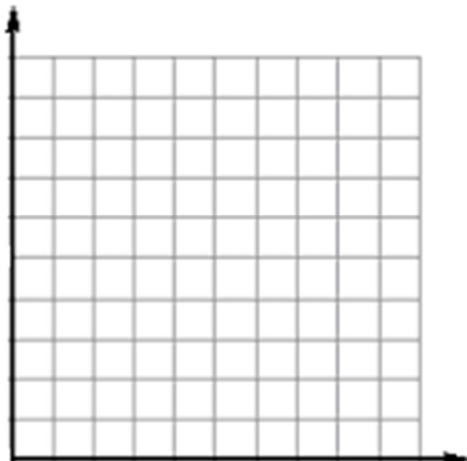
**Table**

Represent the pattern in a table.

Step	# triangles

**Graph**

Represent the pattern in a graph.



**Analysis**

- What will be the total number of triangles in Step 5 of the pattern? Show or explain how you got your answer.
- Write an expression in terms of  $n$  that represents the total number of triangles in Step  $n$  of the pattern.
- Use your expression from part (b) to find the total number of triangles in Step 10 of the pattern. Show or explain how you got your answer.
- Chris made one step of the pattern that had 15 more triangles than the step before it. What step of the pattern had 15 more triangles than the step before it? Show or explain how you got your answer.