

Activity 15.18 PREDICT HOW MANY

Working in pairs or small groups, have students explore a pattern and respond to these questions:

- Complete a table that shows the number of triangles for each step.

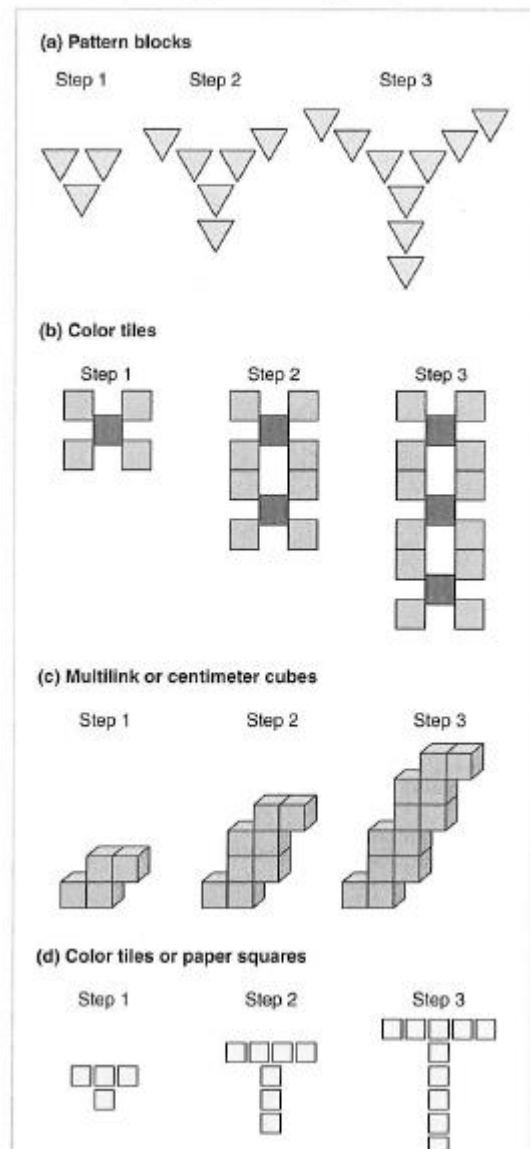
Step Number (Term)	1	2	3	4	5	10	20
Number of Triangles (Element)							

- How many triangles are needed for step 10? Step 20? Step 100? Explain your reasoning.
- Write a rule (in words and/or symbols) that gives the total number of pieces to build any step number (n).

Keep in mind that ELLs need clarification on the specialized meanings of *step* and *table* because these words mean something else outside of mathematics.

Figure 15.11

Geometric growing patterns using manipulatives.



From Van de Walle et. al. (2014). *Teaching Student-Centered Mathematics Grades: Developmentally Appropriate Instruction for Grades 3 – 5 (2nd Ed.)*. Toronto: Pearson Education, Inc. (p. 305).