

Take Home Question

Points available

HSPA 0=0, HSPA 1 = 5,

HSPA 2 = 10, HSPA 3 = 15

Name _____

Veronica was given a set of three pictures that formed a pattern. She left the question on the kitchen table and her brother, Eric, erased the first two figures. So when she got home only Figure 3 remained on the question sheet.

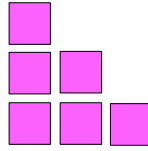


Figure 1

Figure 2

Figure 3

Figure 4

1. Your task is to first study Figure 3 and think about what Figure 1 and 2 could have looked like. Draw a picture of these two figure in the appropriate boxes above.
2. Using your pattern complete Figure 4 in the appropriate box above.
3. Complete the table below for the four figures. Then find the fifth term and the Nth term for each of the rows.

Figure Number	1	2	3	4	5	N
Number of squares in the top row			1			
Number of squares in the bottom row			3			
Total Number of Squares in the Figure			6			

4. Use your nth term expression and show how to find the total number of squares in the 50th figure.

Scoring Rubric

Score of 3

The student demonstrates a complete understanding of developing a pattern, collecting data from the pattern, writing Nth terms for patterns, and using the Nth term expression to make predictions.

Score of 2

The student demonstrates some understanding of working with patterns. The student may be able to generate a pattern and collect data, but cannot write Nth terms or use Nth terms expression to make predictions.

Score of 1

The student demonstrates limited understanding of working with patterns. The student may have difficulty generating a pattern and/or collect data about the pattern, and work with Nth term expressions.

Score of 0

The student demonstrates no understanding of developing a pattern, collecting data from the pattern, writing Nth terms for patterns, and using the Nth term expression to make predictions.