Drawing the Graph of a Pattern

Quick Review

At Home At School

Here are some ways to represent a pattern.

➤ Model the pattern on grid paper.
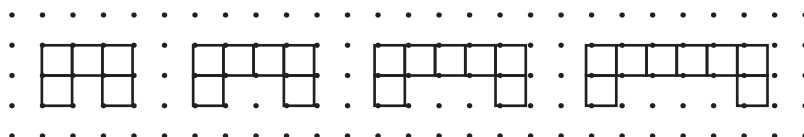
Figure 1   **Figure 2**   **Figure 3**   **Figure 4**

➤ Make a table.

Figure Number	Number of Squares	Ordered Pair
1	5	(1, 5)
2	6	(2, 6)
3	7	(3, 7)
4	8	(4, 8)

➤ Draw a graph.

Number of Squares in a Pattern
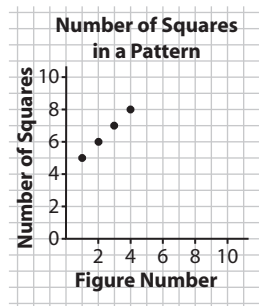
Try These

1. Henry made this pattern.
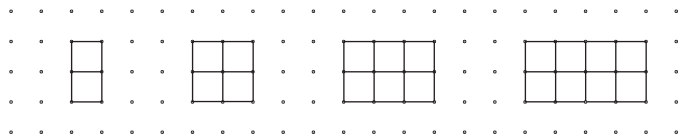
Figure 1   **Figure 2**   **Figure 3**   **Figure 4**

a) Complete the table.

Figure Number	Number of Squares	Ordered Pair
1	2	(1, 2)

b) Graph the pattern

Number of Squares in a Pattern
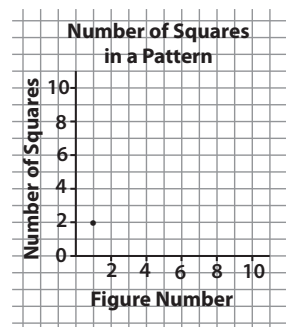
1. a) Describe the relationship shown in the table.

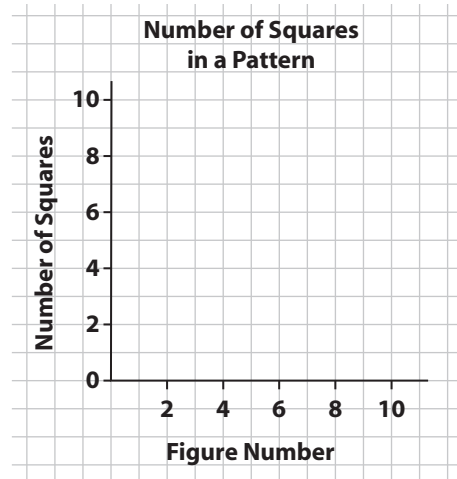| Figure Number	1	2	3	4	5
Number of Squares	1	3	5	7	9

_____

_____

b) Draw squares on the grid to model the pattern.
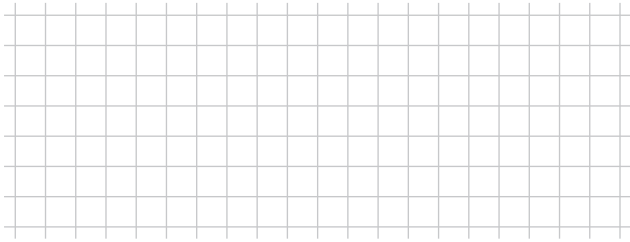
c) Graph the pattern.

d) How many squares are needed for Figure 10?

_____

e) Which figure has 29 squares?

_____

f) Which figure has 51 squares?

_____

Number of Squares in a Pattern

Number of Squares (y-axis): 0, 2, 4, 6, 8, 10
Figure Number (x-axis): 2, 4, 6, 8, 10

2. Draw a pattern to model the data in the table.

Figure Number	1	2	3	4
Number of Triangles	1	2	4	8

Stretch Your Thinking

Use the table in question 2.

How many triangles are in Figure 10? _____

Which figure has 8192 triangles? _____