Toothpick Pattern

Look at the toothpick pattern pictured below. Recreate the toothpick pattern and determine how many toothpicks it takes to create each figure. Record the information in the table provided.

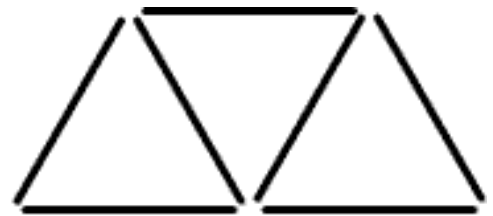

Figure 1   Figure 2   Figure 3

Continue the pattern, creating the next 3 figures. Determine the number of toothpicks it takes to create the next 3 figures, and record the information in your table.

Figure 4:

Figure 5:

Figure 6:

Next, see if you can draw the 10th figure in the pattern. How many toothpicks would you need to create the 10th figure?

Can you develop a rule that would tell you how many toothpicks would be in any figure in the pattern?

Now count the number of toothpicks in the perimeter of each figure and record the information in your table.

Can you develop a rule that would tell you how many toothpicks would be in the perimeter of any figure in the pattern?

How is this rule different from the first rule?