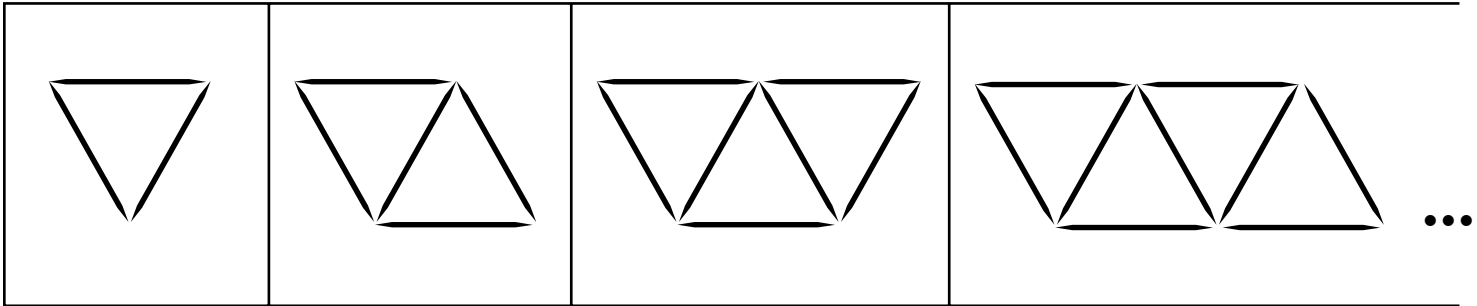


MathFLIX CHALLENGE

Toothpick Patterns: *Instructional*

Each figure is made of toothpicks. Assume that the sequence of figures continues with each figure increasing in size in a similar manner. How many toothpicks will be needed to create the 15th figure in the sequence?



1. What do you see?
2. Can you predict the question?
3. Read the problem.
4. How many toothpicks do you need for 1 triangle? How many are added to make 2 triangles? How many are added to make 3 triangles? How many are added to make 4 triangles?
4. Predict how many you would need to make 5 triangles, 6 triangles, and 7 triangles.
5. What rule did you use to make the prediction?
6. Complete this table for up to 15 triangles:

# of Triangles	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
# of Toothpicks															

First I studied the diagram **because** _____

Second I read the problem **because** _____

Next, I decided to make a table **because** _____

My answer is _____ **because** _____

Finally, I checked my work because I wanted to get all 12 points.