

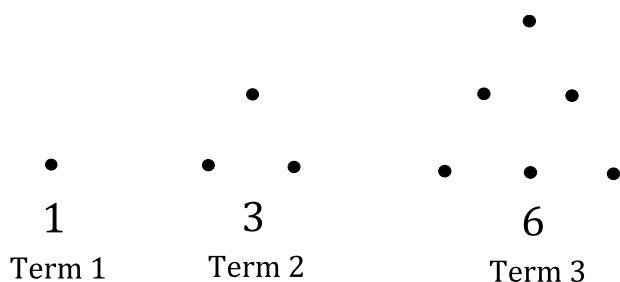
Problem of the Week

Problem B

Even Dots are Odd

The numbers 1, 3, 6, 10, 15, 21, and so on, form a *sequence*. That is, there is a rule which tells you how to find each number, or *term* in the sequence, from the previous term.

- a) These numbers are sometimes called Triangular Numbers because they can be represented by dots arranged in triangles. Here are the first three terms:



Draw the dot-triangles that would represent the next three terms, 10, 15, and 21.

- b) Write a pattern rule for this sequence.
 c) Enter the next five numbers in the sequence in the table.

Term	Number
1	1
2	3
3	6
4	10
5	15
6	21
7	
8	
9	
10	
11	

Extension:

What is the pattern of odd and even numbers in this sequence? Why does this happen?

