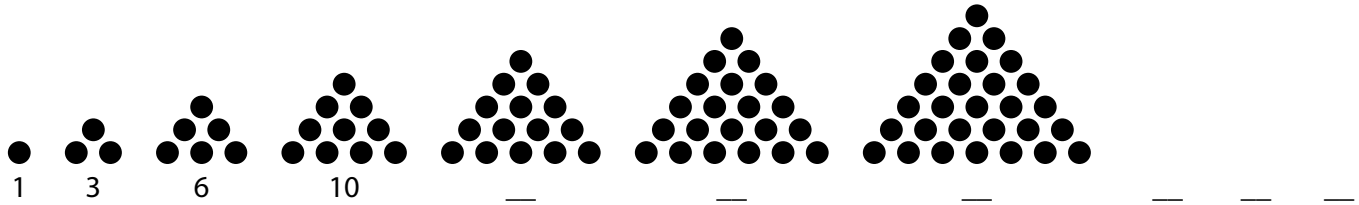


COUNTDOWN CHALLENGE

Night 5: Triangular Numbers

Some numbers are called figurate numbers because they make shapes (or figures) like triangles, squares and cubes. Study these triangular numbers to discover a pattern then calculate the next 3 triangular numbers.



Use the table below to show that any counting number can be expressed as the sum of two or three triangular numbers.

counting #'s	sum of triangular #'s
1	
2	1 + 1
3	
4	
5	
6	
7	
8	6 + 1 + 1
9	
10	

counting #'s	sum of triangular #'s
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

counting #'s	sum of triangular #'s
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	

Can you add 2 adjacent triangular numbers to get a square number?

1 + 3 =	3 + 6 =	6 + 10 =	= 25	= 36	= 49