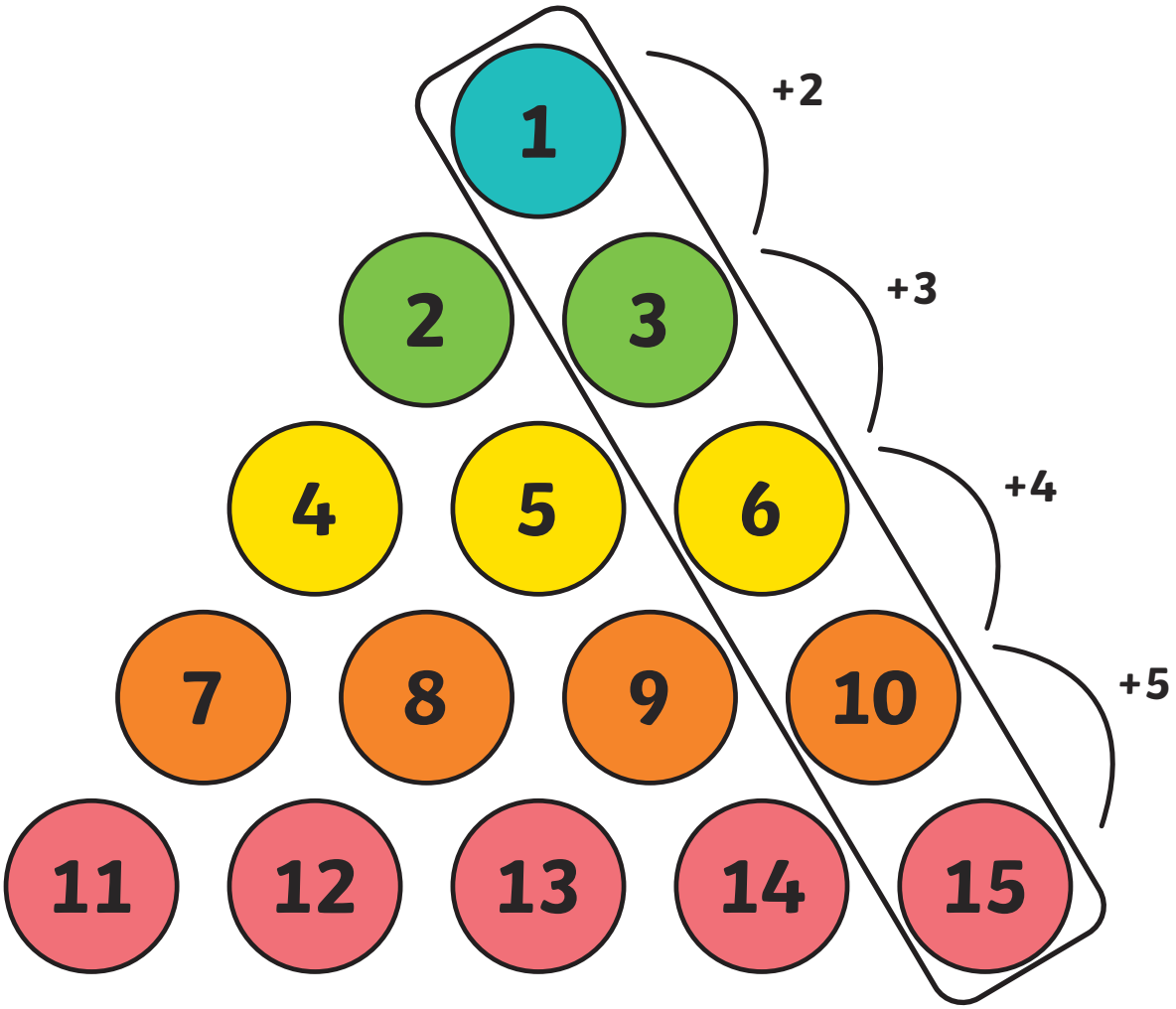
Triangular Numbers

Triangular numbers form a number pattern. They are arranged in an equilateral triangle with an increasing number of dots in each row.



You can use this formula to find the number of dots in any triangle, where x_n = number of dots in triangle n.

$$x_n = \frac{n(n+1)}{2}$$

Examples

The sixth triangular number is:

$$x_6 = \frac{6(6+1)}{2} = 21$$

The fiftieth triangular number is:

$$x_{50} = \frac{50(50+1)}{2} = 1275$$