

Sequences

Key Vocabulary

Linear **Lin/e/ar** or an arithmetic **a/rith/met/ic** sequence — A sequence where the difference between terms is constant (the same)

Geometric **Geo/met/ric** sequence — A sequence where you multiply or divide the previous term by a given amount

Term — Each number in a sequence

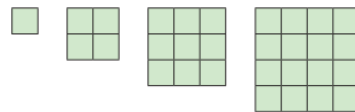
Term to term rule — the difference between each term. It can be a positive or a negative value.

Position to term rule — the algebraic rule of a sequence where you can find any term by substituting the position number into the formula.

Examples of non-linear sequences

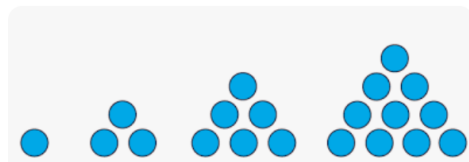
Square numbers

1, 4, 9, 16, 25



Triangular numbers

1, 3, 6, 10, 15



Fibonacci sequence **Fib/on/ac/ci**

1, 1, 2, 3, 5, 8, 13

Add together the previous two terms

Continuing a sequence

Linear

7, 12, 17, 22 There is a common difference of 5, so you add on 5 to the last term. So, the next term will be 27

Geometric

2, 4, 8, 16 The rule is, multiply the last term by 2, so you multiply 16 by 2 to give the next term of 32.