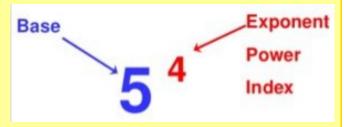
Maths—Term 4

| Sequences | | Fractions and Percentages | | Indices |
|------------------------|---|---------------------------|--|-----------|
| Sequence | A list of terms made by following a rule | | A part of a whole. It is made up a numerator and | |
| Term Num | Numbers or diagrams that form a sequence . | Fraction | a denominator. | Base |
| Position | The place in which a term sits within a sequence . E.g. 1, 4, 7, 10 - the term 4 sits in position 2 because it's the second term in the sequence . | Numerator | The top number in a fraction. It tells us how many parts of the item we have. | Index |
| Term to Term Rule | A rule that allows you to find the next term in a sequence if you know the previous term . | Denominator | The bottom number in a fraction. It shows how many parts the item has been split into. | |
| Difference | The gap between two numbers found by subtracting. | Decimal | A decimal is part of a whole. There are terminating or recurring decimals. | |
| Linear Sequence | e.g. difference between 8 and 5 is 8 – 5= 3 A linear sequence has a common difference where the term to term rule is add or subtract. | Terminating Decimal | Decimals that have an end point. E.g. 0.456 | |
| | e.g. 4, 7, 10, 13 is linear because the term to term rule is add 3. | Recurring Decimal | Decimals that do not have an end point. E.g. 0.33333 | |
| Non-linear Sequence | A non-linear sequence does not have a common difference between terms. e.g. 6, 8, 11, 15 | Percent | A fraction out of 100. E.g. 15% is the same as "15 out of 100" | Indices |
| Geometric Sequence | A geometric sequence has terms that are multiplied by the same number. e.g. 3, 6, 12, 24, 48 The term-to-term rule is x2 | Multiplier | Used in percentages to increase / decrease an amount by multiplying it by a single number. E.g. to increase an amount by 20% multiply it by the decimal 1.2 | Squared |
| Fibonacci Sequence | A sequence where the next number is found by adding up the two numbers before it . 1, 1, 2, 3, 5, 8, 13, 21, 34, 55 | Interest | The amount of money paid for a loan or an investment | Cubed |
| | Add together next number 1, 1, 2, 3, 5, 8, 13, 21, 34, 55 Add together to get the next number | Profit | When money is gained. Sam bought a car for £3000 and sold it for £4000. He made a £1000 profit (4000—3000 = 1000) | |
| Ascending | A sequence where the value of the terms increase. E.g. 4, 10, 16, 22 | Loss | When money is lost. Sam bought a car for £3000 and sold it for £2000. He made a £1000 loss (2000—3000 = -1000) | |
| Descending | A sequence where the value of the terms decrease. E.g. 10, 6, 2, -2, -6 | | | Fo Tri |



This is the number or value that has the **power**, **index** or **exponent** applied to it.

This tells you how many of a value have been multiplied together.



This means 5 x 5 x 5 x 5

We say "five to the power of four"

Another word for the index number is the **power** or the **exponent**.

The plural of **index**.

Squaring a number is when you multiply two of the same value together. E.g. $4 \times 4 = 4^2$

We can say "four squared" or "four to the power of two"

Cubing a number is when you multiply three of the same value together. E.g. $a \times a \times a = a^3$

We can say "a cubed" or "a to the power of three"

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