



# Glossary

$$2 + 4 = 6$$

4

$$5 + 0 = 5$$

$$2 + 2 = 4$$

A	
<b>Acute angle</b>	An angle between 0° and 90°
<b>Adjacent</b>	Adjacent sides are next to each other and are joined by a common vertex.
<b>Algebra</b>	The branch of mathematics where symbols or letters are used to represent numbers and to state general properties
<b>Algorithm</b>	A standard, written procedure for doing a calculation, which, if followed correctly, step by step, will always lead to the required result; e.g. subtraction by decomposition, long multiplication and long division
<b>Analogue clock</b>	A clock with the numbers 1 to 12 (or Roman Numerals) around the face and rotating hands to show the hours, minutes and seconds
<b>Angle</b>	An angle is a measure of turn or rotation. The size of an angle is measured by the amount one line has been turned in relation to the other. An angle is formed when two straight lines cross or meet each other at a point
<b>Angle at a point</b>	The complete angle at a point is 360°
<b>Angle at a point on a line</b>	The sum of angles on a straight line is 180°
<b>Anticlockwise</b>	The opposite direction to that of the hands on a clock
<b>Approximate ≈</b>	An approximate value is a value that is close to the actual value of a number
<b>Arc</b>	Part of a circumference of a circle – a curve
<b>Area</b>	The amount of space a 2D shape takes up. E.g. the area of the lawn is 35 square metres
<b>Array</b>	A set of objects or pictures arranged in columns and rows
<b>Associative Law</b>	For any three numbers $a$ , $b$ and $c$ , $(a + b) + c = a + (b + c)$ or $(a \times b) \times c = a \times (b \times c)$
<b>Asymmetrical</b>	A shape which has no lines of symmetry
<b>Average</b>	A value to best represent a set of data. There are three type of average - the mean, the median and the mode
<b>Axis</b>	An axis is one of the lines used to locate a point in a coordinate system

B	
<b>Bar chart / graph</b>	Uses bars (of equal width) to show quantities or numbers so they can be easily compared
<b>Bar line/chart</b>	As a bar chart but uses lines instead of bars
<b>Block graph</b>	A block represents one piece of data
<b>Bond</b>	A pair of numbers with a particular total
<b>Brackets</b>	Used to determine the order in which operations are carried out. For example, $3 + 4$

$x 2 = 11$ but $(3 + 4) \times 2 = 14$
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C	
<b>Capacity</b>	The volume of material (usually liquid) that a container can hold; usually measured in litres and millilitres
<b>Celsius scale (°C)</b>	A metric scale for measuring temperature, also called the centigrade scale
<b>Centilitre (cl)</b>	A measure of volume. 100 centilitres = 1 litre (100 cl = 1 l). 1 centilitre = 10 millilitres (1 cl = 10 ml).
<b>Centimetre (cm)</b>	A measure of distance. 1 centimetre = 10 millimetres. (1 cm = 10 mm). 100 centimetres = 1 metre. (100 cm = 1 m).
<b>Circle</b>	A 2-D shape
<b>Circumference</b>	The perimeter of a circle.
<b>Clockwise</b>	The direction in which the hands of a clock turn
<b>Column</b>	A vertical arrangement
<b>Columnar addition and subtraction</b>	Ways of setting out an addition or subtraction calculation in which the ones, tens, hundreds and thousands (and so on) in the numbers in the calculation are arranged in columns. (Column methods)
<b>Common factor</b>	A number which as a factor of 2 or more other numbers e.g. 5 is a common factor of 10 and 15
<b>Commutative law</b>	The order of two numbers in an addition/multiplication calculation makes no difference to their sum $a$ and $b$ , $a + b = b + a$ and $a \times b = b \times a$ .
<b>Composite number</b>	A number that has more than 2 factors. It can be shown as a rectangular array with more than one row; e.g. 21 is a composite number (with factors 1, 3, 7 and 21) and can be arranged as 3 rows of 7. All non-prime numbers except 1 are composite.
<b>Cone</b>	A 3-D shape consisting of a circular base and one continuous curved surface tapering to a point (the apex) directly above the centre of the circular base.
<b>Congruent</b>	If you can place a shape exactly on top of another then they are said to be congruent. You may rotate, reflect or translate the shape.
<b>Co-ordinates</b>	Starting from the origin, the distance moved in the $x$ -direction followed by the distance moved in the $y$ -direction to reach a particular point; recorded as $(x, y)$ .
<b>Correspondence problem</b>	E.g. I have 3 hats and 4 jackets- how many different outfits can I wear?
<b>Cross section</b>	The end section created when you slice through a 3-D shape
<b>Cube</b>	A 3-D shape with six square faces and all its edges equal in length.
<b>Cube number</b>	The product when an integer is multiplied by itself twice. For example 5 cubed

	$= 5 \times 5 \times 5 = 125.$
<b>Cubic centimetre (cm<sup>3</sup>)</b>	The volume of a cube of side one centimetre; written $1 \text{ cm}^3$ but read as 'one cubic centimetre'.
<b>Cuboid</b>	A 3-D shape with all sides made from rectangles.
<b>Cylinder</b>	A 3-D shape, like a baked-bean tin, consisting of two identical circular ends joined by one continuous curved surface.

<b>D</b>	
<b>Day</b>	A time period of 24 hours. There are 7 days in a week.
<b>Decagon</b>	A ten sided polygon.
<b>Decimal</b>	Not a whole number or integer. For example, 3.6 or 0.235.
<b>Decrease</b>	To make an amount smaller.
<b>Degree</b>	A measure of angle; 360 degrees ( $360^\circ$ ) is a complete turn.
<b>Denominator</b>	The bottom part of a fraction.
<b>Diagonal</b>	A line joining any two non-adjacent vertices of a polygon
<b>Diameter</b>	The distance across a circle which passes through the centre. Twice the radius.
<b>Difference</b>	Found by comparing two quantities. Subtract the smaller value from the larger value to find the difference between two numbers
<b>Digit sum</b>	The sum of all the digits in a given natural number; e.g. the digital sum of 8937 is 27 ( $8 + 9 + 3 + 7$ ).
<b>Digits</b>	The individual symbols used to build up numerals; the digits are 0, 1, 2, 3, 4, 5, 6, 7, 8 and 9
<b>Direct proportion</b>	The relationship between two variables where the ratio of one to the other is constant. E.g. , the number of fingers on a hand and the number of hands would normally be in direct proportion.
<b>Distance</b>	How far away an object is. For example, it is a distance of 3 miles to the city centre.
<b>Distributive law</b>	The laws that allow you to distribute a multiplication or division across an addition or across a subtraction. E.g. $28 \times 4$ can be split up into $20 \times 4$ add $8 \times 4$ .
<b>Dividend</b>	The amount you are dividing e.g. $27 \div 3 = 9$ , 27 is the dividend
<b>Divisor</b>	The number you divide by e.g. $27 \div 3 = 9$ , 3 is the divisor
<b>Dodecahedron</b>	A polyhedron with 12 faces

<b>E</b>	
<b>Edge</b>	The intersection of two surfaces; in particular, the straight line where two faces of a polyhedron meet.
<b>Equal =</b>	Used to show two quantities have the same value.
<b>Equation</b>	Two expressions which have the same value, separated by an '=' sign. E.g. $3y = 9 + y$
<b>Equilateral triangle</b>	A triangle with all sides and angles the same size.
<b>Equivalent fractions</b>	Two or more fractions that represent the same part of a unit or the same ratio. For example, $\frac{2}{3}$ , $\frac{4}{6}$ , $\frac{6}{9}$ , $\frac{8}{12}$ are all equivalent fractions.
<b>Estimate</b>	To find an approximate answer to a more difficult problem. E.g. $31.2 \times 5.94$ is roughly equal to $30 \times 6 = 180$ .
<b>Even number</b>	Any number which is a multiple of 2. Even numbers always end in 2, 4, 6, 8 or 0.
<b>Exchange</b>	When ten in one place can be exchanged for one in the next place to the left, and vice versa; e.g. 10 hundreds can be exchanged for 1 thousand, and 1 thousand can be exchanged for 10 hundreds.
<b>Expand</b>	To multiply out brackets in an expression. For example, $2(3x + 7) = 6x + 14$ .
<b>Expression</b>	A collection of terms which can contain variables (letters) and numbers. E.g. $4b + 7$

<b>F</b>	
<b>Face</b>	One of the flat surfaces of a solid shape. Example: a cube has six faces.
<b>Fact</b>	Recall of knowledge e.g. addition fact for 10 could be $5 + 5$
<b>Factor</b>	A whole number that divides into another whole number exactly. E.g. 4 is a factor of 12.
<b>Factor pairs</b>	A pair of whole numbers that when multiplied together give a number e.g. 2 and 6 are factor pairs of 12, 4 and 4 are factor pairs of 16
<b>Figures</b>	Another name for numbers. For example one thousand and fifty in figures is 1050.
<b>First</b>	The quadrant consisting of all those points with positive coordinates.

<b>quadrant</b>	
<b>Formula</b>	An equation used to describe a relationship between two or more variables.
<b>Fraction</b>	a way of (a) representing a part of a whole or unit, (b) representing a part of a set, (c) modelling a division problem, (d) expressing a ratio
<b>Frequency</b>	How many times something happens. Another word for 'total'.

<b>G</b>	
<b>Gram (g)</b>	A measure of mass. 1 gram = 1000 milligrams. (1 g = 1000 mg)
<b>Grouping</b>	Dividing things into equal groups (sets)

<b>H</b>	
<b>Half</b>	One of two equal parts, $\frac{1}{2}$
<b>Heptagon</b>	A seven sided polygon.
<b>Hexagon</b>	A six sided polygon.
<b>Horizontal</b>	Parallel to the horizon
<b>Hour</b>	A unit of time equal to 60 minutes. 24 hours make 1 day.

<b>I</b>	
<b>Imperial units</b>	Units of measurement that were at one time statutory in the UK, most of which have now been officially replaced by metric units; e.g. pints, ounces
<b>Improper fraction</b>	A fraction in which the top number is greater than the bottom number; a fraction greater than 1; informally, a top-heavy fraction.
<b>Increase</b>	To make an amount larger.
<b>Indices</b>	Another name for powers such as $2^2$ or $3^3$ .
<b>Inequality</b>	A statement that one number is greater than another ( $>$ ) or less than another ( $<$ ). For example, $80 < 87$ (80 is less than 87) and $100 > 87$ (100 is greater than 87).
<b>Integer</b>	A whole number, positive, negative or zero
<b>Interpret</b>	Get key information from a graph or chart...
<b>Inverse operations</b>	Opposite or reverse operations e.g. addition and subtraction, multiplication and division are inverse operations
<b>Irrational</b>	A decimal which is never ending. It must also not be a recurring decimal.
<b>Irregular</b>	A shape that is not regular.

<b>Isosceles triangle</b>	A triangle with two equal sides; the two angles opposite these two equal sides are also equal
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## J

<b>K</b>	
<b>Kilogram (Kg)</b>	A measure of mass. 1 kilogram = 1000 grams. (1 kg = 1000 g)
<b>Kilometre (Km)</b>	A measure of distance. 1 kilometre = 1000 metres. (1 km = 1000 m)
<b>Kite</b>	A quadrilateral that has two sets of equal sides and one set of opposite angles that are equal

<b>L</b>	
<b>Length</b>	A measure of distance, from one end to another.
<b>Line graph / chart</b>	Uses lines to join points that represent data.
<b>Line of symmetry</b>	The mirror line in which a shape with reflective symmetry is reflected onto itself.
<b>Litre (l)</b>	A measure of volume. 1 litre = 100 centilitres (1 l = 100 cl). 1 litre = 1000 millilitres (1l = 1000 ml).
<b>Long division</b>	A formal written method for division by a two-digit number (and larger) e.g. $645 \div 14$
<b>Long multiplication</b>	A formal written method for multiplying by a two-digit number (and larger). e.g. $438 \times 23$

<b>M</b>	
<b>Mass</b>	A measurement of the quantity of matter in an object, measured, for example, in grams and kilograms; technically not the same thing as weight
<b>Mean</b>	A type of average found by adding up a list of numbers and dividing by how many numbers are in the list.
<b>Metre (m)</b>	A measure of distance. 1 metre = 100 centimetres. (1 m = 1000 cm).
<b>Midpoint</b>	The point in the middle of a line, the point dividing a line in half.

<b>Millilitre (ml)</b>	A measure of volume. 10 millimetres = 1 centilitre (10 ml = 1 cl). 1000 millilitres = 1 litre (1000 ml = 1 l).
<b>Millimetre (mm)</b>	A measure of distance. 10 millimetres = 1 centimetre. (10 mm = 1 cm).
<b>Minute</b>	A unit of time that is equal to 60 seconds. 60 minutes make 1 hour.
<b>Mixed number</b>	A way of writing a fraction greater than 1 as a whole number plus a proper fraction. For example, $18/5$ as a mixed number is $2\frac{1}{5}$
<b>Month</b>	A time period of either 28, 29, 30 or 31 days. There are 12 months in a year.
<b>Multiple</b>	A number which is part of another number's times table. E.g. 35 is a multiple of 5.

<b>N</b>	
<b>Negative</b>	A value less than zero
<b>Net</b>	A 2-D arrangement of shapes that can be cut and folded up to make a polyhedron
<b>Nonagon</b>	A nine sided polygon.
<b>Numeral</b>	The symbol used to represent a number; e.g. the number of children in a class might be represented by the numeral 28.
<b>Numerator</b>	The top part of a fraction.

<b>O</b>	
<b>Oblong</b>	A rectangle that is not a square.
<b>Obtuse angle</b>	An angle between $90^\circ$ and $180^\circ$ .
<b>Octagon</b>	An eight sided polygon.
<b>Octahedron</b>	A 3-D shape with 8 faces
<b>Odd number</b>	A number that is not a multiple of 2. Odd numbers always end in 1, 3, 5, 7 or 9.
<b>Operation</b>	An action which when applied to one or more values gives an output value. The 4 most common operations are addition, subtraction, multiplication and division.

<b>P</b>	
<b>Parallel</b>	Two or more lines which are always the same distance apart.
<b>Parallelogram</b>	A quadrilateral with two pairs of parallel sides.
<b>Partition</b>	Splitting a number into smaller amounts e.g. 35 can be partitioned into 30 and 5 or 20 and 15 or 31 and 4 or 20 and 10 and 5
<b>Pattern</b>	A repeated design or recurring sequence.

<b>Pentagon</b>	A five sided polygon.
<b>Percent %</b>	In (or 'for') each hundred; for example, 25% means 25 in each hundred.
<b>Perimeter</b>	The distance around a shape.
<b>Perpendicular</b>	Two or more lines which meet at right angles.
<b>Pictogram</b>	A graph using pictures to represent quantities.
<b>Pie chart</b>	A graph using a divided circle where each section represents part of the whole.
<b>Place value</b>	The value of digit depending on its position in a number.
<b>Polygon</b>	A closed 2-D shape made from straight lines.
<b>Polyhedron</b>	A 3-D shape with only straight edges and plane surfaces; plural is polyhedral.
<b>Positive number</b>	A number greater than zero.
<b>Prime</b>	A number which has exactly two factors. The number one and itself. The first ten prime numbers are 2, 3, 5, 7, 11, 13, 17, 19, 23 and 29.
<b>Prime factors</b>	Factors of a number that are prime
<b>Prism</b>	A 3-D shape with the same cross section all along its length.
<b>Product</b>	The answer when two values are multiplied together.
<b>Proper fraction</b>	A fraction in which the numerator is smaller than the denominator; a fraction less than 1.
<b>Proportion</b>	A comparative part of a quantity or set. A proportion (such as 3 out of 10) can be expressed as a fraction ( $\frac{3}{10}$ ), as a percentage (30%) or as a decimal (0.3).
<b>Pyramid</b>	A 3-D shape with a polygon as a base and triangular faces that meet at a point (vertex, apex)

<b>Q</b>	
<b>Quadrant</b>	One of the four regions into which the plane is divided by the two axes in a coordinate system.
<b>Quadrilateral</b>	A four sided polygon.
<b>Quarter</b>	One of four equal parts, $\frac{1}{4}$
<b>Quarter turn</b>	A turn or rotation of $90^\circ$
<b>Quotient</b>	The answer from a division calculation e.g. $45 \div 5 = 9$ , 9 is the quotient

<b>R</b>	
<b>Radius</b>	The distance from the centre of a circle to its circumference. The plural of radius is radii.
<b>Range</b>	The largest number take away the smallest value in a set of data.

<b>Rate</b>	A ratio that compares quantities measured in different units.
<b>Ratio (:)</b>	A comparative value of two or more amounts. Maybe written as a fraction, 3:4, three 'for every' four.
<b>Rational</b>	A decimal number which ends or is recurring.
<b>Rectangle</b>	A quadrilateral with four right angles and two pairs of opposite equal parallel sides.
<b>Rectilinear shape</b>	A 2-D shape whose straight sides meet at right angles.
<b>Reflection</b>	A transformation in a mirror line
<b>Reflex angle</b>	An angle greater than 180°.
<b>Regular</b>	A shape with all sides and angles the same size.
<b>Remainder</b>	The amount left over when a number cannot be divided exactly. For example, 21 divided by 4 is 5 remainder 1.
<b>Rhombus</b>	A parallelogram with four equal sides and equal opposite angles.
<b>Right angle</b>	An angle of 90°.
<b>Roman Numerals</b>	The capital letters used by Romans to denote numbers I for 1; V for 5; X for 10; L for 50; C for 100; D for 500; M for 1000.
<b>Rotation</b>	To transformation of a shape relating to turn using an angle, direction and centre of rotation.
<b>Round</b>	To reduce the amount of significant figures or decimal places a number has. For example £178 rounded to the nearest £10 is £180.
<b>Row</b>	A horizontal arrangement

<b>S</b>	
<b>Scale factor</b>	How many times larger or smaller an enlarged shape will be. Ratio
<b>Scalene triangle</b>	A triangle with no sides/angles equal
<b>Scatter gram</b>	A diagram with points plotted to show a relationships between two variables
<b>Second</b>	A unit of time. 60 seconds = 1 minute
<b>Sequence</b>	A list of numbers which follows a pattern. For example 6, 11, 16, 21, ...
<b>Sharing</b>	Dividing between a known number of groups.
<b>Short division</b>	A formal written method for division by one-digit numbers e.g. 252 ÷ 6
<b>Short multiplication</b>	A formal written method for multiplying by a one-digit number e.g. 138 x 6

<b>Speed</b>	How fast an object is moving. Average speed = Total distance ÷ time taken.
<b>Sphere</b>	A 3-D shape that is perfectly round e.g. a ball
<b>Square</b>	A quadrilateral with four right angles and four equal sides.
<b>Square number</b>	The product when an integer is multiplied by itself. For example, 1, 4, 9, 16, 25, 36, 49, 64, 81, 100.
<b>Statistics</b>	The collection, organisation, presentation, interpretation and analysis of data.
<b>Sum</b>	The answer when two or more values are added together.
<b>Surface area</b>	To total area of all sides on a 3-D shape.
<b>Symmetrical</b>	A shape which has at least one line of symmetry.

<b>T</b>	
<b>Table</b>	Arrangement of information usually in columns and rows
<b>Tally</b>	A system of counting where every group of four vertical lines is followed by a horizontal line to count in steps of five.
<b>Term</b>	A number, variable or combination of both which forms part of an expression.
<b>Tetrahedron</b>	A 3-D shape with four triangular faces.
<b>Transformation</b>	The collective name for reflections, rotations, translations and enlargements.
<b>Translation</b>	To move a shape from one position to another by sliding in the x-axis followed by the y-axis.
<b>Trapezium</b>	A quadrilateral with one pair of parallel sides.
<b>Triangle</b>	A 2-D shape with three straight sides.
<b>Triangular number</b>	A sequence of numbers generated by adding one more than was added to find the previous term. For example, 1, 3, 6, 10, 15, 21, ...
<b>Turn</b>	To rotate around a point.

<b>U</b>	
<b>Unit fraction</b>	A fraction with a numerator of 1.
<b>Units</b>	A quantity used to describe a measurement. Examples are kilograms, metres and centilitres.

<b>V</b>	
<b>Value</b>	A numerical amount or quantity.

<b>Variable</b>	A letter which we don't know the value of.
<b>Vertex</b>	A point at which 2 or more lines meet. Vertices
<b>Vertical</b>	At right angles to the horizon.
<b>Volume</b>	A 3-D measure of space. The amount an object can hold. E.g. a bottle of cola has a volume of 2 litres.

<b>W</b>	
<b>Week</b>	A time period of 7 days.
<b>Weight</b>	A measure of heaviness (the force a mass exerts)
<b>Whole</b>	All, everything, the total amount. All the parts.
<b>Wide</b>	Used to describe the width of something
<b>Width</b>	The distance from side to side. E.g. 'The swimming pool is 10 metres wide.'

<b>X</b>	
<b>X-Axis</b>	The horizontal axis on a graph. The line going across the page.

<b>Y</b>	
<b>Y-Axis</b>	The vertical axis on a graph. The line going from top to bottom.
<b>Year</b>	A time period of 12 months or 365 days. (366 in a leap year.)

<b>Z</b>	
<b>Zero</b>	A number with no quantity; it is neither positive or negative

