**»** *(symbol)* approximately equal to

**º** *(symbol)* identically equal to

**µ** *(symbol)* proportional to

**Î** *(symbol)* belongs to; is a member of

**Ï** *(symbol)* does not belong to; is not a member of

**È** *(symbol)* union; $A È B$ means A or B or both

**Ç** *(symbol)* intersection; $A Ç B$ means A and B

$\pi$ *(= **pi**) (symbol)* the Greek letter pi is the number 3.141 592 653

$\rho$ *(= **rho**) (symbol)* the Greek letter rho is used to represent density

$\theta$ *(= **theta**)* the Greek letter theta is often used to represent an unknown angle

**absolute error** *(noun)* the maximum difference between the measured value and the actual value

**accuracy** *(noun)* how close a measured value is to the actual value

**acute angle** *(noun)* an **angle** that is less than 90°

**adjacent** *(adjective)* next to; adjacent sides in a shape touch each other

**adjacent side** *(noun)* the side in a right-angled triangle that is next to the chosen angle $\theta$, it is between the angle $\theta$ and the right angle

**algebra** *(noun)* an area of mathematics where numbers are represented by letters

**alternate angles** *(noun)* when a pair of parallel lines are crossed by a diagonal line then a pair of angles on the inside of the parallel lines but on opposite sides of the diagonal are equal; these angles are alternate angles

**angle** *(noun)* the amount of turn between two lines about a common point. Angles are measured in degrees

**angle bisector** *(noun)* a line that cuts an angle exactly in half

**approximate** *(verb)* the solution to a calculation found by rounding the numbers in the calculation giving a value close to the solution but not the exact solution

**arc** *(noun)* part of the circumference of a circle

**area** *(noun) the* space occupied by a 2D shape

**arithmetic** *(noun)* an area of maths that involves calculations with numbers

**arithmetic sequence** *(noun) (= **linear sequence**)* a sequence of numbers in which the difference between consecutive terms is constant; for example, 3, 5, 7, 9, … or 13, 10, 7, 4, …

**arrowhead** *(noun)* a **quadrilateral** with two pairs of **adjacent** sides of equal length containing two **acute angles**

**ascending** *(adjective)* increasing in size from smallest to largest **ascend** *(verb)* go up

**average** *(noun)* a number that expresses the typical value of a set of data. **Mode**, **median** and **mean** are all different averages

**axis** *(noun) (singular) (plural: axes)* the **horizontal** and **vertical** lines on a graph used for the measurement of **coordinates**

**bar chart** *(noun)* a diagram using rectangles of equal width (bars) whose height represent an amount or frequency

**bar model** *(noun)* a diagram of a bar split into parts; used to help illustrate a mathematical problem

**bearing** *(noun)* an angle in degrees, measured clockwise from north. A bearing is always written using three digits

**bias** *(adjective)* a sample is biased if some members of the population are more likely to be included than others; a biased sample is not representative of the whole population

**bisect** *(verb)* to cut into two equal parts

**bisector** *(noun)* a line that cuts an angle, line or shape in half

**calculate** *(verb)* to work out the value or answer to a mathematical question

**capacity** *(noun)* the amount an object can hold; its volume. Units of capacity are $cm^3$, m$l$ and litres

**cell** *(noun)* one of the individual boxes in a spreadsheet

**centi** *(prefix)(symbol c)* one hundredth or $10^{-2}$; for example, 1 centimetre (or 1 cm) is 0.01 metres

**centre of enlargement** *(noun)* the point about which a shape is enlarged during an enlargement

**centre of rotation** *(noun)* the point about which a shape is turned during a rotation

**circumference** *(noun)* the perimeter of a circle

**class** *(noun)* a group of data that falls within a particular category or numerical interval

**class interval** *(noun)* the set of values that defines the class; for example, $3 < x \leqslant 7$

**clinometer** *(noun)* a tool used to measure the angle of elevation or depression from the **horizontal**

**coefficient** *(noun)* the number multiplying a **variable**; for example, the coefficient of $6x$ is 6

**co-interior angles** *(noun)* when a diagonal line crosses a pair of parallel lines then a pair of angles on the inside of the parallel lines and on the same side of the diagonal are co-interior; co-interior angles have a sum of 180°

**column vector** *(noun)* a way of describing the movement in a translation. For example, the column vector $\begin{pmatrix} 2 \\ -3 \end{pmatrix}$ describes a translation of 2 square right and 3 squares down.

**common denominator** *(noun)* when two or more fractions have the same **denominator**

**common difference** *(noun)* the difference between consecutive terms in an arithmetic sequence; for example, 13, 10, 7, 4 … has a common difference of −3

**common ratio** *(noun)* the number you multiply one term in a **geometric sequence** by in order to find the next term; for example, 2, 6, 18, 54, … has a common ratio of 3

**(pair of) compasses** *(noun)* an instrument used for drawing circles and arcs

**compound interest** *(noun)* the interest earned on an investment each year is added to money invested and then earns interest the following year

**compound measure** *(noun)* a measurement that is made by combining two (or more) quantities; for example, **speed** (distance travelled per second)

**compound shape** *(noun)* a shape made up of two or more basic shapes

**cone** *(noun)* a 3D shape with a circular base attached to one curved side ending at a point

**congruent** *(adjective)* the same shape and size

**consecutive terms** *(noun)* numbers that are next to each other in a sequence

**constant** *(noun)* a value that does not change

**constant of proportionality** *(noun)* is the ratio between two quantities in **direct proportion**. For example, when $y$ is directly proportional to $x$ then the constant of proportionality $k$ equals $\dfrac{y}{x}$

**construct** *(verb)* to draw accurately using a ruler and compasses

**continuous data** (or **measurement**) *(noun)* data (or measurements) that can take any value within a range

**convert** *(verb)* to change how something is written but keep the same meaning; for example, 5 kg can be converted into 5000 g

**coordinates** *(noun)* a set of values that shows an exact position on coordinate **axes**

**correlation** *(noun)* the relationship between two sets of **data**; two sets of unrelated data have no correlation

**corresponding angles** *(noun)* **1** angles that are in the same position when a diagonal line crosses a pair of parallel lines; corresponding angles are equal **2** *(noun)* **equivalent** angles on a pair of shapes (the shapes are either congruent or one is an **enlargement** of the other)

**corresponding sides** *(noun)* equivalent sides on a pair of shapes (the shapes are either **congruent** or one is an **enlargement** of the other)

**cosine ratio** *(noun)* (= **cos $\theta$**) the ratio of the adjacent side to the hypotenuse in a right-angled triangle; $\cos\theta = \dfrac{\text{adjacent}}{\text{hypotenuse}}$

**cross-section** *(noun)*; the end face of a prism; the 2D shape formed when a 3D solid is cut through parallel to its base

**cube (cubing)** *(noun)* **1** a 3D shape with six square faces **2** a number multiplied by itself twice; for example, 5 cubed = $5^3$ = 5 × 5 × 5 = 125; can be written as 5 to the power 3.

**cube root** *(noun)* a number which produces a specified number when multiplied by itself twice; the inverse of **cubing** (see cube); for example, the cube root of 8 is 2 since 2 × 2 × 2

**cubed** *(verb)* to multiply a number by itself twice; see **cube**

**cuboid** *(noun)* a 3D shape with six rectangular faces

**cylinder** *(noun)* a 3D shape with three faces; two circular faces and one curved **face**; for example, a tube or pipe is a cylinder

**data** *(noun)* a group of facts or statistics, can be numerical or non-numerical

**data logging** *(verb)* the process of gathering and storing data

**decagon** *(noun)* a ten-sided 2D shape

**decagonal prism** *(noun)* a **prism** with two decagonal sides

**deci** *(prefix)* (symbol d) one tenth or $10^{-1}$; for example, 1 decilitre (or 1 d$l$) is 0.1 litres

**decimal** *(noun)* a number with figures to the right of the decimal point

**decimal system** *(noun)* a system of writing numbers using 10 digits 0, 1, 2, 3, 4, 5, 6, 7, 8 and 9. In a system the base unit increases by powers of 10; for example, ten, hundred, thousand and so on

**degree** *(noun)* a measurement of turn (angle)

**denominator** *(noun)* the bottom number of a fraction

**density** *(noun)* mass per unit of volume; density is mass divided by volume and usually has units kg/m$^3$ or g/cm$^3$

**dependent** *(adjective)* two events are dependent if one happening affects the probability of the other happening

**descend** *(verb)* go down

**descending** *(adjective)* decreasing in size from largest to smallest

**diagonal** *(noun)* a straight line joining two opposite corners of a shape

**diameter** *(noun)* a line through the centre of a circle joining two points on the circumference

**difference** *(noun)* the result when a lower number is subtracted from a higher number

**difference of two squares** *(noun)* an expression in the form $x^2 - y^2$; the expression factorises to give $(x + y)(x - y)$

**dimension** *(noun)* measurement of length in one direction; for example, the dimensions of a 3D shape are its length, width and height

**direct proportion** *(noun)* when two quantities $x$ and $y$ are in direct proportion the ratio $\dfrac{x}{y}$ is constant, so as $x$ increases then $y$ increases at the same rate

**discrete data (or measurement)** *(noun)* data (or measurements) that can only take particular values

**distance–time graph** *(noun)* a graph used to represent a journey. The vertical axis represents distance from a starting point and the horizontal axis represents time

**edge** *(noun)* the lines on a 3D shape where two **faces** meet

**element** *(noun)* a member of a set

**elimination method** *(noun)* a method of solving simultaneous equations by adding or subtracting the equations to produce a 3rd equation in just one unknown

**enlargement** *(noun)* **enlarge** *(verb)* to make larger or smaller by multiplying all the dimensions of a shape by a scale factor. The resulting shape is an enlargement of the starting shape

**equal** *(adjective)* to have the same value or size

**equation** *(noun)* a mathematical statement that connects two **expressions** with an = sign. Some equations contain an **unknown** (a letter) and can be **solved**; for example, $2x + 1 = 5$

**equation (of a line)** *(noun)* a **formula** that expresses the relationship between the $x$ and $y$ **coordinates** on a graph

**equilateral triangle** *(noun)* a **triangle** with all sides of equal length and all angles equal; all angles are 60°

**equivalent** *(adjective)* to be equal in value or size

**error** *(noun)* difference between the actual and measured value

**estimate** *(verb)* to find an **approximate** solution to a calculation; *(noun)* an **approximate** solution to a calculation

**evaluate** *(verb)* to calculate the value of

**even number** *(noun)* an **integer** that can be divided exactly by 2

**event** *(noun)* the outcome of an experiment

**exact** *(adjective)* an exact answer is not rounded and is often written as a fraction or in terms of $\pi$

**expand** *(verb)* to multiply out a set of brackets

**expected (frequency)** *(noun)* the number of times it is expected to get a particular outcome in a given number of trials. Expected frequency is the **probability** of an outcome multiplied by the number of trials

**experiment** *(noun)* something that can be repeated to give a set of data; for example, rolling a dice

**experimental probability** *(noun)* the frequency of one **outcome** divided by the total number of **trials**; for example, if a dice is rolled 10 times and 2 sixes is obtained, then the experimental probability of a six is 2 ÷ 10 = 0.2

**expression** *(noun)* one or more **terms** connected by the operators + and −. The terms may contain numbers and/or symbols; for example, $4x + 7y - 3$

**exterior angle** *(noun)* the angle between the side of a shape and the adjacent side extended outwards

**face** *(noun)* the flat surface of a solid object

**factor** *(noun)* a whole number that divides exactly into another whole number

**factorise (completely)** *(verb)* to use brackets to rewrite an algebraic expression by writing the highest common factor of each term outside of the brackets; for example, $2x + 6$ factorises to give $2(x + 3)$

**fair** *(adjective)* if a dice or spinner is fair then all of the **outcomes** are equally likely to occur; if a game is fair then all of the players have an equal chance of winning

**finite** *(adjective)* does not go on for ever; has an end

**formula** *(noun)* *(singular)* *(plural: formulae)* a rule expressed in symbols

**fraction** *(noun)* a number that is not an **integer**; for example, $\frac{1}{2}$ or 0.5; part of a whole

**frequency** *(noun)* the number of times something occurs

**frequency diagram** *(noun)* a bar graph used to display grouped continuous data where the frequency of each group is represented by the height of its bar

**frequency polygon** *(noun)* a line graph that joins the midpoints of the tops of each bar in a frequency diagram

**function** *(noun)* a relationship between two sets of numbers

**function machine** *(noun)* a visual representation of a **function**

**general term** *(noun)* *(= nth term)* a rule that generates any term in a sequence using the term number $n$; for example, the $n$th term of the sequence 3, 5, 7, 9, … is $2n + 1$

**generalisation** *(noun)* a rule or a description that uses letter terms

**geometric sequence** *(noun)* is a sequence in which each term, after the first term, is found by multiplying the previous term by a fixed number, called the common ratio; for example, 2, 4, 8, 16, … or 1000, 100, 10, 1, …

**giga** *(prefix)* (symbol G) one billion or $10^9$; for example, 1 gigabyte is 1 000 000 000 bytes

**gradient** *(noun)* the steepness of a line or slope

**heptagon** *(noun)* a seven-sided 2D shape

**heptagonal prism** *(noun)* a **prism** with two heptagonal sides

**hexagon** *(noun)* a six-sided 2D shape

**hexagonal prism** *(noun)* a **prism** with two hexagonal sides

**highest common factor (HCF)** *(noun)* the largest whole number that will divide exactly into two or more whole numbers

**horizontal** *(adjective)* parallel to the horizon; a straight flat line from left to right

**hypotenuse** *(noun)* the longest side of a right-angled triangle

**hypothesis** *(noun)* a statement that might be true that needs to be tested

**identity** *(noun)* an **equation** that is true for all values of the **variable**, in an identity, the symbol $\equiv$ is used to show that two **expressions** are always equal; for example, $2x + 3x \equiv 5x$

**image** *(noun)* the shape after a **transformation**

**independent** *(adjective)* two events are independent if one happening does not affect the probability of the other happening

**index notation** *(noun)* a way of writing numbers in a more convenient form using **indices**

**indices** *(noun)* *(plural)* *(singular index)* *(= **powers**)* a number that tells you how many times the given number is multiplied; for example, the index 3 in $10^3$ tells you to multiply 3 tens together, so $10^3$ is $10 \times 10 \times 10$

**inequality** *(noun)* a mathematical statement that says that two expressions are not equal to each other

**infinite** *(adjective)* limitless or never ending

**input** *(noun)* the number going into a function

**integer** *(noun)* a whole number

**interior angle** *(noun)* an angle inside a shape

**intersect** *(verb)* cross or meet

**intersection** *(noun)* the point where two lines cross

**inverse function** *(noun)* a function that reverses or 'undoes' the original function; for example, the inverse of + 4 is – 4

**inverse operation** *(noun)* an operation that reverses or 'undoes' the original operation; for example, the inverse of addition is subtraction

**inverse trigonometric function** *(noun)* the functions $\cos^{-1}\theta$, $\sin^{-1}\theta$ and $\tan^{-1}\theta$ that are used to find an unknown angle in a right-angled triangle

**irregular polygon** *(noun)* a **polygon** whose sides and angles are not all the same size

**isosceles trapezium** *(noun)* a **trapezium** with one pair of sides of equal length and two pairs of equal angles

**isosceles triangle** *(noun)* a triangle with two sides of equal length and two equal angles

**key** *(noun)* a label that explains how to read a chart or diagram

**kilo** *(prefix)* (symbol k) one thousand or $10^3$; for example, 1 kilogram (or 1 kg) is 1000 grams

**kite** *(noun)* a quadrilateral with two pairs of **adjacent** sides of equal length

**leading question** *(noun)* a question in a survey that encourages respondents to give a particular answer

**light year** *(noun)* distance travelled by light in one year

**like terms** *(noun)* **terms** that contain the same letter or combination of letters; the powers of like terms must be exactly the same; for example, $2x^2$ and $4x^2$ are like terms but $2x^3$ and $4x^2$ are not

**linear (expression, relationship or equation)** *(noun)* an **expression** where the highest **power** of the **variable** is 1; for example, $y = 3x + 1$ is a linear equation. The graph of a linear equation is a straight line

**linear graph** *(noun)* a straight-line graph

**linear sequence** *(noun)* see **arithmetic sequence**

**line graph** *(noun)* a graph with points connected by straight lines

**line of best fit** *(noun)* a line added to a scatter graph that shows the relationship between the two sets of data. The line of best fit passes through the middle of the plotted points with an equal number of points on either side of it

**line of symmetry** *(noun)* also called reflective symmetry; a line of symmetry occurs where one half of an image is the **reflection** of the other half

**line segment** *(noun)* part of a line; a line joining two **coordinates**

**lower bound** *(noun)* the lowest possible actual value of a rounded measurement

**lowest common multiple (LCM)** *(noun)* the smallest whole number that can be divided without leaving a remainder by two or more whole numbers

**mass** *(noun)* the amount of matter in an object; units grams, kilograms or tonnes

**maximum** *(noun)* the highest value; on a curve the maximum point is at a turning point and is the point with the greatest $y$-coordinate

**mean** *(noun)* the numerical value found by adding together all of the separate values of a data set and dividing by the number of data values

**median** *(noun)* the middle value of a set of values that have been arranged in order of size

**mega** *(prefix)* (symbol M) one million or $10^6$; for example, 1 megabyte is 1 000 000 bytes

**metric units** *(noun)* a measure of length, weight, area or capacity commonly used around the world; for example, length; km, m, cm, mm; weight; kg, g: area; $cm^2$, $m^2$: **capacity**; litres, m$l$, $cm^3$

**micro** *(prefix)* (symbol $\mu$) one millionth or $10^{-6}$; for example, 1 microgram (or $1\mu g$) is 0.000 001 grams

**midpoint** *(noun)* the number half-way between two other numbers

**milli** *(prefix)* (symbol m) one thousandth or $10^{-3}$; for example, 1 millimetre (or 1 mm) is 0.001 metres

**minimum** *(noun)* the lowest value; on a curve the minimum point is at a turning point and is the point with the lowest $y$-coordinate

**mixed number** *(noun)* a number made up of a whole number and fractional part; for example, $3\frac{1}{2}$

**modal class** *(noun)* when data is grouped this is the group that has the highest frequency

**mode** *(noun)* (= **modal value**) the piece of data that occurs most often in a set of data

**multiple (of a number)** *(noun)* is the **product** of that number and a whole number

**multiplicative** *(adjective)* involving multiplication or division

**mutually exclusive events** *(noun)* events that cannot occur together; for example, rolling a dice and getting a 2 and an odd number at the same time

**nano** *(prefix)* (symbol n) one billionth or $10^{-9}$; for example, 1 nanometre (or 1 nm) is 0.000 000 001 metres

**negative correlation** *(noun)* the relationship between two quantities where as one quantity increases, so the other decreases

**negative number** *(noun)* a number smaller than 0

**net** *(noun)* a 2D shape that folds to make a 3D shape

**nonagon** *(noun)* a nine-sided 2D shape

**nonagonal prism** *(noun)* a **prism** with two nonagonal sides

**$n$th term** *(noun)* see **general term**

**numerator** *(noun)* the top number of a fraction

**object** *(noun)* the original shape when an enlargement has taken place

**obtuse angle** *(noun)* an angle larger than 90° and smaller than 180°

**octagon** *(noun)* an eight-sided 2D shape

**octagonal prism** *(noun)* a **prism** with two octagonal sides

**odd number** *(noun)* an **integer** that cannot be divided exactly by 2

**operation** *(noun)* a mathematical process; the most common are +, −, × and ÷

**opposite angles** *(noun)* angles opposite one another in a 2D shape

**opposite side** *(noun)* the side in a right-angled triangle that is opposite the chosen angle $\theta$

**order of magnitude** *(noun)* the relative size of a quantity. Numbers with the same order of magnitude have the same power of 10 when they are written in standard form. A number one order of a magnitude greater than another is 10 times larger

**origin** *(noun)* the point (0, 0) on coordinate axes

**outcome** *(noun)* the end result; for example, the possible outcomes of rolling a dice are 1, 2, 3, 4, 5 and 6

**outlier** *(noun)* a data value that doesn't fit the pattern of the other values

**output** *(noun)* the result of applying a function to an **input**

**parabola** *(noun)* the graph of a quadratic function

**parallel** *(noun)* two lines are parallel if the distance between the two lines is **constant**; both lines have the same gradient

**parallelogram** *(noun)* a **quadrilateral** in which opposite side are **parallel** and the same length

**perfect square** *(noun)* an expression in the form $x^2 + 2ax + a^2$; the expression factorises to give $(x + a)^2$

**perpendicular** *(noun)* two lines at **right angles** to each other

**perpendicular bisector** *(noun)* a line that cuts another line in half at right angles

**perpendicular height** *(noun)* the height measured at **right angles** to the base; the **vertical** height

**pentagon** *(noun)* a five-sided 2D shape

**pentagonal prism** *(noun)* a **prism** with two pentagonal sides

**percentage** *(noun)* the number out of 100; for example, 25% means 25 out of 100

**percentage profit** *(noun)* the percentage change between cost price and selling price

**perimeter** *(noun)* the total length around the outside of a 2D shape

**pico** *(prefix)* (symbol p) one trillionth or $10^{-12}$; for example, 1 picometre (or 1 pm) is 0.000 000 000 001 metres

**pie chart** *(noun)* a diagram in which a circle is divided from its centre into sectors (parts) to show how the total is split up between different categories

**place value** *(noun)* the value a digit has in a number due to its relative position to the decimal point

**plan** *(noun)* the view from above an object

**plane of symmetry** *(noun)* found in 3D shapes; on either side of the plane of symmetry the shape is identical

**plot** *(verb)* to draw a graph of an equation by marking the coordinates and joining them with a line or curve

**polygon** *(noun)* a 2D shape with straight sides

**population** *(noun)* the total number of items that a survey relates to

**positive correlation** *(noun)* the relationship between two quantities; as one quantity increases, so does the other

**positive number** *(noun)* a number larger than 0

**power** *noun* see **indices**

**power of 10** *(noun)* an integer power of the number 10; for example, $10^3 = 1000$ and $10^{-2} = 0.01$

**prefix** *(noun)* a number or word placed before another

**pressure** *(noun)* force applied over a given area. Pressure is force divided by area and has units Newtons per square centimetre (N/cm$^2$) or Newtons per square metre (N/m$^2$)

**primary (data)** *(adjective)* data you collect yourself

**prime number** *(noun)* a number that has exactly two factors, itself and 1

**prism** *(noun)* a solid with the same **cross-section** throughout its length; for example, a cuboid

**probability** *(noun)* the likelihood of an event occurring; usually given as a fraction, decimal or percentage

**product** *(noun)* the result when two or more numbers are multiplied

**profit** *(noun)* the buying price minus the selling price

**proportion** *(noun)* part of a whole; can be expressed a fraction or percentage

**protractor** *(noun)* an instrument used for measuring angles

**pyramid** *(noun)* a 3D shape with a polygon base and sides that are triangles which meet at a point

**Pythagoras' theorem** *(noun)* Pythagoras' theorem says that the square of the hypotenuse of a right-angled triangle is equal to the sum of the squares of the two shorter sides. So $c^2 + a^2 + b^2$ where $c$ is the **hypotenuse** and $a$ and $b$ are the other two sides

**quadratic equation** *(noun)* an equation with an $x^2$ term and no other higher powers of $x$. For example, $x^2 + 3x = 0$

**quadratic function** *(noun)* a function with an $x^2$ term and no other higher powers of $x$. For example,

$y = 2x^2 + 3x - 4$

**quadratic sequence** *(noun)* a sequence of numbers which is based on the square numbers. The $n$th term of a quadratic sequence is in the form $an^2 + bn + c$

**quadrilateral** *(noun)* a four-sided 2D shape

**quantity** *(noun)* amount or number of something

**questionnaire** *(noun)* list of questions designed to test a hypothesis

**radius** *(noun) (singular) (plural: radii)* a line from the centre of a circle to the circumference

**random** *(adjective)* if you select something at random then each **outcome** has the same chance of being selected

**random sample** *(noun)* a sample where each member of the population has an equal chance of being included

**range** *(noun)* the difference between the lowest and highest values of a set of data

**rate of change** *(noun)* a type of compound measure that shows how one quantity changes in relation to time

**ratio** *(noun)* a ratio shows the relative sizes of two or more quantities

**ray** *(noun)* a construction line used when enlarging a shape; a ray connects the centre of enlargement and corresponding vertices on the object and image

**reciprocal** *(noun)* the reciprocal of a number is 1 divided by that number. The reciprocal of a **fraction** turns it 'upside down'. For example, the reciprocal of 2 is $\frac{1}{2}$ and the reciprocal of $\frac{2}{3}$ is $\frac{3}{2}$

**rectangle** *(noun)* a **quadrilateral** with four right angles and two pairs of sides of equal length

**reflection** *(noun)* a type of **transformation**; when a shape is reflected in a mirror line

**reflex angle** *(noun)* an angle larger than 180° and smaller than 360°

**regular polygon** *(noun)* a polygon with all sides and all angles equal

**revolution** *(noun)* one complete turn

**rhombus** *(noun)* a quadrilateral in which opposite sides are parallel and all sides are the same length

**right angle** *(noun)* an angle of 90°

**right-angled triangle** *(noun)* a triangle with one internal angle measuring 90°

**right prism** *(noun)* a **prism** where the cross-section is at right angles to the length of the solid

**rotation** *(noun)* a type of transformation when a shape is turned through a given angle about a point called the **centre of rotation**

**round** *(verb)* to write the **approximate** value of a number by considering its relative position to other numbers; for example, 1.234 rounded to two significant figures (2 s.f.) is 1.2

**sample** *(noun)* a group of items to be tested that is representative of a larger group (the population)

**sample size** *(noun)* the number of items in a sample; a good sample size is usually around 10% of the population

**sample space diagram** *(noun)* a diagram used to show all the possible outcomes from an experiment

**scale** *(noun)* the ratio between the lengths on a scale drawing of an object and the lengths on the real-life object

**scale drawing** *(noun)* a drawing of a real object with lengths reduced by a fixed **scale factor**

**scale factor** *(noun)* the number that the lengths of the sides of a shape are multiplied or divided by to make a smaller or larger drawing of the original object

**scalene triangle** *(noun)* a triangle with no sides of equal length and no equal angles

**scatter graph** (= **scatter diagram**) *(noun)* a diagram used to display the possible relationship (**correlation**) between two sets of data that can be paired. Each data pair is plotted as a point

**secondary (data)** *(adjective)* data collected by someone else

**sector** *(noun)* part of a circle enclosed by two radii and an arc

**semicircle** *(noun)* half of a circle

**sequence** *(noun)* a list of numbers in a particular order

**set** *(noun)* a collection of objects

**significant figure s.f.** *(noun)* the first significant figure is the figure with the highest place value. It is the first non-zero digit in the number, counting from the left. The second significant figure is the digit immediately to the right of the first significant figure and so on

**similar** *(adjective)* two shapes are similar if corresponding sides are in proportion and corresponding angles are equal; the shapes are enlargements of each other

**simple interest** *(noun)* the interest is calculated only on the original amount of money invested. It is the same amount each year

**simplest form** *(noun)* when a fraction or ratio is written so that the **HCF** of the numerical values is 1

**simplify (an expression)** *(verb)* to collect all **like terms** so that the expression is written with as few terms as possible

**simplify (a fraction or ratio)** *(verb)* to write a fraction or ratio in the form where the **HCF** of the numerical values is 1

**simultaneous equations** *(noun)* a pair of equations that connect two unknowns. For example, $x + y = 10$ and $x - y = 2$

**sine ratio** *(noun)* (= **sin θ**) the ratio of the opposite side to the hypotenuse in a right-angled triangle;

$$\sin \theta = \frac{\text{opposite}}{\text{hypotenuse}}$$

**sketch** *(noun)* a rough drawing of a shape or object

**solve** *(verb)* to work out the value of an unknown in an equation; to answer a problem

**solution** *(noun)* the value of an unknown (a letter) in an equation; the answer to a problem

**speed (average speed)** *(noun)* how fast an object is travelling; average speed is total distance travelled divided by total time. Units are m/s or km/h

**sphere** *(noun)* a 3D solid shaped like a ball

**spreadsheet** *(noun)* a page of rows and columns of **cells**

**square** *(noun)* a **quadrilateral** with sides of the same length and with four right angles

**square (squaring)** *(verb)* to multiply a number by itself; for example, the square of 5 is $5^2 = 5 \times 5 = 25$

**square-based pyramid** *(noun)* a five-faced 3D shape with one square **face** and four triangular faces

**square root** *(noun)* a number that produces a specified number when multiplied by itself; the inverse of **squaring**

**square rooting** *(verb)* to find the **square root** of a number

**standard (index) form** *(noun)* a number between 1 and 10 multiplied by a power of 10. Using algebra, standard form is $A \times 10n$ where $1 \leqslant A < 10$ and $n$ is an integer; for example, $3.6 \times 10^4$

**subject (of a formula)** *(noun)* the single variable (letter) usually written on the left of the = sign to which the rest of the formula is equal

**substitute** *(verb)* to replace letters in a formula, expression or equation with numerical values

**substitution method** *(noun)* a method of solving simultaneous equations by substituting one equation into the other

**sum** *(noun)* the result of adding two or more numbers

**surface area** *(noun)* the total area of all the **faces** of a 3D shape; for example, the surface area of a cube is 6 × the area of one face

**survey** *(verb)* to gather information about a population by taking a sample

**tally** *(verb)* a way of counting using marks in groups of 5

**tangent ratio** *(noun)* (= **tan θ**) *the* ratio of the opposite side to the adjacent side in a right-angled triangle;  $\tan \theta = \dfrac{\text{opposite}}{\text{adjacent}}$

**tera** *(prefix)* (symbol T) one trillion or $10^{12}$; for example, 1 terabyte is $10^{12}$ bytes

**term** *(noun)* part of an algebraic expression, can be numeric or algebraic; for example, in the expression $3x + 4y - 3$ the terms are $3x$, $4y$ and $-3$; also defined as one of the numbers in a sequence

**term-to-term rule** *(noun)* the rule for finding the next term in a sequence from the previous term

**theoretical probability** *(noun)* probability that is calculated without running an experiment; for example, the theoretical probability of rolling a 6 on a dice is $\dfrac{1}{6}$

**tonne** *(noun)* a unit of mass equal to 1000 kg

**transformation** *(noun)* a **reflection**, **rotation**, **enlargement** or **translation** of a shape

**translation** *(noun)* **translate** *(verb)* a type of **transformation** done by sliding a shape a fixed number of places left/right and up/down

**trapezium** *(noun) (singular) (plural: trapezia)* a **quadrilateral** with one pair of parallel sides

**tree diagram** *(noun)* a diagram used to show two or more events and their probabilities

**trend** *(noun)* the general direction of the change over time in a set of data, ignoring the individual ups and downs

**trial** *(noun)* a single run of an **experiment**

**triangle** *(noun)* a three-sided 2D shape

**triangular prism** *(noun)* a 3D shape with two identical triangular faces and three rectangular faces

**trigonometric function** *(noun)* the functions cosine, sine and tangent

**trigonometry** *(noun)* an area of maths that involves calculating unknown angles and lengths in triangles

**turning point** *(noun)* the point of on a curve where the curve changes direction. A turning point can be a maximum or minimum point

**two-way table** *(noun)* a table that displays the frequency for two variables, one displayed horizontally and one vertically

**unit ratio** *(noun)* a **ratio** in the from 1 : $n$ or $n$ : 1. Unit ratios are often used in scale drawings

**units (unit of measurement)** *(noun)* a defined size or quantity; for example, kilograms, litres, metres

**unknown** *(noun)* the letter in an **equation**

**upper bound** *(noun)* the biggest possible actual value of a rounded measurement

**value** *(noun)* a number or the result of a calculation

**variable** *(noun)* a letter that represents a number

**Venn diagram** *(noun)* a diagram representing sets of numbers or objects in circles within an enclosed rectangle

**vertex** *(noun)(singular) (plural: vertices)* the corners on a 2D or 3D shape; the point where two lines meet

**vertical** *(adjective)* at right angles to the **horizontal**

**vertically opposite angles** *(noun)* angles opposite each other when two straight lines cross

**volume** *(noun)* the amount of space occupied by a 3D shape

**weight** *(noun)* the weight of an object is the force due to gravity

$x$**-intercept** *(noun)* the point where a line or curve crosses the $x$-axis

$y$**-intercept** *(noun)* the point where a line or curve crosses the $y$-axis