

A

Acute angle An angle less than 90° .

Adjacent Adjacent sides are next to each other and are joined by a common vertex.

Angle An angle is formed when two straight lines cross or meet each other at a point. The size of an angle is measured by the amount one line has been turned in relation to the other.

Approximate An approximate value is a value that is close to the actual value of a number.

Arc Part of a circumference of a circle.

Area The amount of space a shape takes up e.g. the area of the lawn is 35 m^2 .

Asymmetrical A shape which has no lines of symmetry.

Average There are three type of average - the mean, the median and the mode.

B

Bearing A three digit angle measured from north in a clockwise direction.

BIDMAS A way of remembering the order in which operations are carried out. It stands for Brackets - Indices - Division - Multiplication - Addition - Subtraction.

Bisect To divide an angle or shape exactly in half.

C

Centilitre (cl) A measure of volume. $100 \text{ centilitres} = 1 \text{ litre}$ ($100 \text{ cl} = 1 \text{ l}$). $1 \text{ centilitre} = 10 \text{ millilitres}$ ($1 \text{ cl} = 10 \text{ ml}$).

Centimetre (cm) A measure of distance. $1 \text{ centimetre} = 10 \text{ millimetres}$. ($1 \text{ cm} = 10 \text{ mm}$). $100 \text{ centimetres} = 1 \text{ metre}$. ($100 \text{ cm} = 1 \text{ m}$).

Chord A straight line drawn from one point on the edge of a circle to another.

Circumference The perimeter of a circle.

Coefficient The number in front of an algebraic symbol. For example the coefficient of $5x$ is 5.

Congruent Shapes are congruent if they are exactly the same size and shape

Constant A letter or symbol whose value always stays the same.

Cross-section The end section created when you slice a 3D shape along its length.

Cube number The product when an integer is multiplied by itself twice. For example 5 cubed (5^3) = $5 \times 5 \times 5 = 125$.

Cuboid A 3D shape with all sides made from rectangles.

Cumulative frequency A running total of the frequencies, added up as you go along.

D

Day A time period of 24 hours. There are 7 days in a week.

Decagon A ten sided polygon.

Decimal Not a whole number or integer. For example, 3.6 or 0.235.

Decrease To make an amount smaller.

Denominator The bottom part of a fraction.

Diameter The distance across a circle which passes through the centre.

Distance How far away an object is. For example, it is a distance of 3 miles to the city centre.

Distribution How data is shared or spread out.

E

Equal Used to show two quantities have the same value.

Equation Two expressions which have the same value, separated by an '=' sign, for example $3y = 9 + y$

Equilateral triangle A triangle with all sides and angles the same size.

Estimate To find an approximate answer to a more difficult problem. E.g. 31.2×5.94 is roughly equal to $30 \times 6 = 180$.

Even number Any number which is a multiple of 2. Even numbers always end in 2, 4, 6, 8 or 0.

Expand To multiply out brackets in an expression. For example, $2(3x + 7) = 6x + 14$.

Expression A collection of terms which can contain variables (letters) and numbers. For example $4pq - q + 7$

F

Factor A number that divides another number exactly. E.g. 4 is a factor of 12.

Factorise To put an expression into brackets by taking out a common factor. For example, $20x + 15y = 5(4x + 3y)$.

Formula An equation used to describe a relationship between two or more variables.

Frequency How many times something happens.

Frequency density The frequency divided by the class width.

G

Gradient How steep a line is. Found by dividing the change in y by the change in x.

Gram (g) A measure of mass. 1 gram = 1000 milligrams. (1 g = 1000 mg)

H

HCF Stands for 'highest common factor'. It is the largest factor common to a set of numbers. E.g. The HCF of 16 and 24 is 8.

Heptagon A seven sided polygon (two-dimensional shape)

Hexagon A six sided polygon (two-dimensional shape)

Histogram A diagram drawn with rectangles where the area is proportional to the frequency and the width is equal to the class interval.

Hypotenuse The longest side on a right angled triangle.

I

- Increase** To make an amount larger.
- Indices** Another name for powers such as 2 or 3 .
- Integer** A whole number.
- Inter-quartile range (IQR)** The difference between the upper and lower quartile.
- Irrational** A decimal which is never ending. It must also not be a recurring decimal.

J

- Justify** Another word for 'explain'. Often crops up on your maths exam. E.g. 'Calculate the mean and range for each player. Who is the better player? Justify your answer.'

K

- Kilogram (kg)** A measure of mass. 1 kilogram = 1000 grams. (1 kg = 1000 g)
- Kilometre (km)** A measure of distance. 1 kilometre = 1000 metres. (1 km = 1000 m)

L

- LCM** Stands for 'lowest common multiple'. It is the smallest multiple common to a set of numbers. E.g. The LCM of 3 and 4 is 12.
- Litre (l)** A measure of volume. 1 litre = 100 centilitres (1 l = 100 cl). 1 litre = 1000 millilitres (1 l = 1000 ml).
- Loci** The plural of locus.
- Locus** A collection of points which are the same distance from another point or line.

M

Mean A type of average found by adding up a list of numbers and dividing by how many numbers are in the list.

Median The middle value when a list of numbers is put in order from smallest to largest.

Metre (m) A measure of distance. 1 metre = 100 centimetres. (1 m = 1000 cm).

Millilitre (ml) A measure of volume. 10 millimetres = 1 centilitre (10 ml = 1 cl). 1000 millilitres = 1 litre (1000 ml = 1 l).

Millimetre (mm) A measure of distance. 10 millimetres = 1 centimetre. (10 mm = 1 cm).

Modal Another term for mode

Mode The most common value in a list of numbers. If two values are the same then there are two modes. If more than two values are the same then there is no mode.

Month A time period of either 28, 30 or 31 days. There are 12 months in a year.

Multiple A number which is part of another number's times table. E.g. 35 is a multiple of 5.

N

Natural number A positive integer

Negative A value less than zero

Nonagon A nine sided polygon (two-dimensional shape)

Numerator The top part of a fraction.

O

Obtuse angle An angle between 90° and 180° .

Octagon An eight sided polygon.

Odd number A number that is not a multiple of 2. Odd numbers always end in 1, 3, 5, 7 or 9.

Operation An action which when applied to one or more values gives an output value. The four most common operations are addition, subtraction, multiplication and division.

P

- Parallel** Two or more lines which are always the same distance apart.
- Parallelogram** A quadrilateral with two pairs of parallel sides.
- Pentagon** A five sided polygon (two-dimensional shape)
- Perimeter** The distance around a shape.
- Perpendicular** Two or more lines which meet at right angles (90°).
- Pi (π)** An irrational constant used when calculating the area and circumference of circles. It is approximately equal to 3.14.
- Polygon** A shape made from straight lines.
- Positive number** A number greater than zero.
- Prime** A number which has exactly two factors. The number one and itself.
- Prism** A 3D shape with the same cross section all along its length.
- Probability** A measure of how likely an event is to occur.
- Product** The answer when two values are multiplied together.

Q

- Quadratic equation** An equation where the highest power is two.
For example, $x^2 + 4x + 6 = 0$ is a quadratic equation.
- Quadrilateral** A four sided polygon (two-dimensional shape)

R

- Radius** The distance from the centre of a circle to its circumference. The plural of radius is radii.
- Random sampling** A method of choosing people at random for a survey.
- Range** The largest number subtract the smallest value in a set of data.
- Rational** A decimal number which ends or is recurring.

Reciprocal The reciprocal of any number is 1 divided by the number. For example, the reciprocal of 3 is $\frac{1}{3}$; the reciprocal of $\frac{3}{4}$ is $\frac{4}{3}$.

Recurring A decimal which never ends but repeats all or parts of the sequence of numbers after the decimal point. For example, 0.333333 or 0.141414.

Reflex angle An angle greater than 180° .

Regular A shape with all sides and angles the same size.

Remainder The amount left over when a number cannot be divided exactly. For example, 21 divided by 4 is 5 remainder 1.

Right angle An angle of 90° .

Rotation To turn a shape using an angle, direction and centre of rotation.

Round To reduce the amount of significant figures or decimal places a number has. For example £178 rounded to the nearest £10 is £180.

S

Scale factor How many times larger or smaller an enlarged shape will be.

Segment An area of a circle enclosed by a chord.

Sequence A list of numbers which follows a pattern. For example 6, 11, 16, 21, ...

Simplify To write a sum, expression or ratio in its lowest terms. For example 4:10:6 can be simplified to 2:5:3.

Solid A 3-dimensional (3-D) shape.

Solve To find the missing value in an equation.

Speed How fast an object is moving.
Average speed = Total distance divided by time taken.

Square number The product when an integer is multiplied by itself. For example, 1, 4, 9, 16, 25, 36, 49, 64, 81, 100 are square numbers

Sum The answer when two or more values are added together.

Surface area The total area of all sides on a 3D shape.

Symmetrical A shape which has at least one line of symmetry.

T

Tally A system of counting where every group of four vertical lines is followed by a horizontal line to easily count in steps of five.

Tangent A straight line that just touches one point on a curve. A tangent to a circle is perpendicular to the radius which meets the tangent.

Term A number, variable or combination of both which forms part of an expression.

Transformation The collective name for reflections, rotations, translations and enlargements.

Translation To move a shape from one position to another by sliding in the x-axis followed by the y-axis.

Trapezium A quadrilateral with one pair of parallel sides.

Tree diagram A method of solving probability questions by listing all the outcomes of an event. Probabilities are calculated by multiplying along the branches.

Triangle A three sided polygon (two-dimensional shape)

Triangular number 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, ...

U

Units A quantity used to describe a measurement. Examples are kilograms, metres and centilitres.

V

Value A numerical amount or quantity.

Variable A letter which we don't know the value of.

Volume The amount of space occupied by a substance or object or enclosed within a container.

W

- Week** A time period of 7 days.
- Wide** Used to describe the width of something
- Width** The distance from side to side. E.g. 'The swimming pool is 10 metres wide.'

X

- x-axis** The horizontal axis on a graph. The line going across the page.

Y

- y-axis** The vertical axis on a graph. The line going from top to bottom.
- y-intercept** The value of the y-coordinate when a graph crosses the y-axis.
- Year** A time period of 12 months or 365 days. (366 in a leap year.)

Z

- z-axis** Represents the depth of an object when working with 3D coordinates.