Maths Vocabulary Glossary

Acute angle – An angle measuring less than 90°
Add/addition – To join two or more quantities to get the sum or total
Adjacent – Next to
Algebra – An area of maths where unknown quantities are represented by letters
Alternate angles – Equal angles within parallel lines that are identified by a Z shape
Angle – The amount of turning between two lines meeting at the same point
Anti-clockwise – The opposite direction to which hands move round a clock
Approximate – To estimate a number, usually through rounding
Arc – A section of the circumference of a circle
Area – The size of the space a surface takes up, measured in units^2
Ascending – Going up
Average – A summary of a set of data, either mode, median and mean
Axis – Reference lines on a graph
Bar graph – A graph using bars to show quantities for easy comparison
Bisect – To divide into two equal sections
Box plot – A diagram that uses a number line to show the distribution of data through the minimum, lower quartile, median, upper quartile and maximum
Brackets – Symbols used to enclose an expression, ( )
Calculate – Work out, find the value of
Calculator – A device that performs mathematical operations
Capacity – The amount a container can hold
Centimetre – A metric unit for measuring length (10 millimetres)
Centre – The middle
Certain – Inevitable, will definitely happen
Chance – The likelihood that a particular outcome will occur
Circle – A 2D shape whose edge is always the same distance from the centre
Circumference – The perimeter of the circle
Chord – A straight line joining two points at the edge of the circle, not through the centre
Clockwise - The direction which hands move round a clock
Common denominator – A denominator which is a multiple of the other denominators
Compasses (pair of) – A mathematical instrument used to draw circles
Cone – A 3D shape with a circular base which tapers to a single vertex at the top
Congruent – Having the same shape and the same size
Continuous data – Data which could have an infinite number of values with a particular range
Coordinates – Pairs of numbers used to show a position of a graph with axes, eg (2,-4)
Corresponding angles– Equal angles within parallel lines that are identified by a F shape
Cross section – The face that results from slicing through a prism
Cube – A 3D shape with 6 square faces
Cuboid A 3D with 3 pairs of rectangular faces
Cube number – A number found by multiply a number by itself 3 times, eg $4^3 = 4 \times 4 \times 4 = 64$
Cylinder – A prism whose cross section is a circle
Data – A collection of information
Decagon – A 2D shape with 10 sides
Decimal – A part of a number or a whole, 0.4 or 3.279
Decrease – To make smaller
Degree – The unit with which angles are measured, eg 67°
Denominator – The bottom number of a fraction

Density - The degree of compactness of a substance, found by mass ÷ volume
Descending – Going down
Diagonal – A straight line joining two non-adjacent vertices
Diameter – A line going through a circle edge to edge that passes through the centre
Dice – A cube marked with dots or numbers
Digit – A symbol used to show a number, 1 2 3...
Discrete data - Data which has only a finite number of values
Divide/division – To share equally, ÷
Double – To multiply by 2
Edge – The part of a 3D shape where 2 faces meet
Equal to/equals – To have the same value, =
Equation - Two expressions that are equal to each other
Equilateral triangle – A triangle with 3 equal sides and 3 equal angles
Equivalent fractions – Two fractions representing the same proportion
Estimate – To find a close answer by rounding
Even number – A number in the 2x table
Even chance – An outcome shares the same probability of occurring with another
Expression (algebraic) – Made up of terms and operations (algebra)
Exterior angle – The angle formed outside a polygon when a side is extended
Face – The flat part of a 3D shape
Factor – A number that divides exactly into another
Formula – A mathematical rule to describe a relationship between quantities
Fraction – A part of a number or a whole, $\frac{3}{4}$
Frequency – The number of times a particular value appears in a set of data
Gradient – The slope of a line
Gram – A metric unit for measuring mass
Graph – A drawing or diagram used to record information
Half – To divide by 2
Hexagon – A 2D shape with 6 sides
Heptagon – A 2D shape with 7 sides
Highest common factor – The greatest of all the factors shared by a pair of numbers
Horizontal – A straight line parallel to the horizon
Hypotenuse – The longest side of a right-angled triangle
Impossible – Will not happen
Improper fraction – A fraction with a larger numerator than denominator
Increase – To make bigger
Index/indices – Numbers or letters raised to a power, 4^2 or a^6
Inequality – Two amounts not equal to each other, < ≤ ≥ >
Infinite/infinity – Unlimited, goes on forever
Integer – A whole number
Interior angle – An angle inside a polygon
Intersect – The point where two lines cross
Inverse operations – Opposite operations, + inverse to -, x inverse to ÷
Irregular (polygon) – A polygon with different sized sides and angles
Isometric (paper) – equal dimensions between dots
Isosceles triangle – A triangle with 2 equal sides and 2 equal angles
Kilogram – A metric unit for measuring mass (1000 grams)
Kilometre – A metric unit for measuring length (1000 metres)
Kite – A 2D shape with two pairs of equal sides and one pair of opposite angles that are equal
Line of symmetry – Divides a shape into two congruent sides

Linear – Has one dimension
Litre – A metric unit for measuring capacity (1000 millilitres)
Lowest common multiple - The smallest of all the multiples shared by a pair of numbers
Maximum – The greatest possible value
Mean – An average found by finding the sum of the data and dividing by the number of values
Median – An average found by locating the middle value of an ordered set of data
Metre – A metric unit for measuring length (100 centimetres, 1000 millimetres)
Midpoint – The middles point between 2 values or 2 coordinates
Millilitre – A metric unit for measuring capacity
Millimetre – A metric unit for measuring length
Minimum – The smallest possible value
Minus - Negative
Mixed number – A number comprised of an integer and a fraction
Mode – An average found by identifying the value with the highest frequency
Multiply/multiplication – A number is added to itself a number of times, x
Multiple – A number in another number's times table
Negative – Below/less than zero/0, -4
Net – A 2D shape that can be folded into a 3D shape
Nonagon – A 2D shape with 9 sides
Number line – A line marked with numbers
Numerator – The top number of a fraction
Obtuse angle - An angle measuring more than 90° but less than 180°
Octagon – A 2D shape with 8 sides
Odd number – A number not in the 2x table
Operations – Add, subtract, multiply, divide
Opposite angles – A pair of equal angles directly opposite each other formed by the intersection of 2 straight lines
Origin – Coordinate (0,0)
Outcome – One of the possible results of a probability experiment
Outlier – A value far away from the others in a set of data (also called anomaly)
Parallel – Lines that are the same distance apart
Parallelogram – A 2D shape with 2 pairs of parallel lines
Pentagon – A 2D shape with 5 sides
Percent/percentage – A part of a number or a whole. Per cent means out of 100, 46%
Perimeter – The distance around the edge of a 2D shape
Perpendicular – Two lines meeting at a right-angle
Pi – Ratio of the circumference to a circle's diameter, π, 3.141592...
Pictogram – A graph using pictures to represent frequency
Pie chart – A graph using a divided circle where each section represents a part of the total
Place value – The value of a digit depending on its place in the number
Plan – A diagram showing the view from directly above
Plane – A flat surface
Polygon – A 2D shape with straight sides
Population – Whole set from which a sample is taken
Positive – Above/greater than zero/0
Prime – a number with only two factors, 1 and itself
Prime factor – A number which is both a factor of something and a prime
Prism – A 3D shape with a constant cross section throughout
Probability – The chance that a particular outcome will occur
Product – The result of multiplying

Proportion – A part to whole comparison
Protractor – An instrument used to measure the size of angles
Pyramid - A 3D shape with a polygon base which tapers to a single vertex at the top
Pythagoras – In any right-angled triangle where c is the hypotenuse, $a^2 + b^2 = c^2$
Quadrant – Any quarter of a plane divided by an x- and y-axis
Quadrilateral – A 2D shape with 4 sides
Qualitative data – Non-numerical data
Quantitative data – Numerical data
Quantity – A number of something
Radius – The distance from the centre of a circle to its edge
Random – A chance pick from a number of items
Range – The smallest value subtracted from the greatest value
Ratio – Comparative value of 2 or more amounts
Reciprocal – One of two numbers whose product is 1, ½ and 2
Rectangle – A quadrilateral with two pairs of parallel sides with different lengths and all vertices are right-angles
Recurring decimal – A decimal which has repeating digits or a repeating pattern of digits
Reflection – A mirror view
Reflex angle – An angle measuring more than 180° and less than 360°
Regular polygon – A polygon with all sides and angles equal
Remainder – The remaining amount after dividing a quantity by a number that is not a factor
Rhombus – A parallelogram with all sides equal
Right-angle – An angle measuring exactly 90°
Right-angled triangle – A triangle with one right-angle
Rotation – To turn an object
Rotational symmetry – When a turning shape has the same outline as the original shape
Round/rounding – Change the number to a more convenient value
Sample – A part of the population to be used
Scale factor – The ratio of two corresponding edges on a scaled drawing
Scalene triangle – A triangle with all different sides and all different angles
Scatter diagram – A diagram with coordinates plotted to show the relationship between two variables
Sector – A section of a circle bounded by two radii and an arc
Segment – A section of a circle bounded by a chord and an arc
Semi-circle – Half a circle
Sequence – An ordered set of numbers or objects arranged according to a rule
Set (of data) – A collection of items
Similar - Having the same shape but a different size
Simplify (algebra) – To remove brackets, unnecessary terms and numbers
Simplify (fractions) – To reduce the numerator and denominator in a fraction to the smallest numbers possible
Solve/solution – To work out the answer
Sphere – A 3D shape that is perfectly round, a ball
Square – A 2D shape with all equal sides and all angles 90º
Square number – A number that results by multiplying another number by itself
Square root – The opposite of squaring a number
Subtract/subtraction – To take one quantity away from another, -
Sum – The result of adding
Surface area – The area of the surface of a 3D shape
Symmetry – An object is symmetrical when one half is a mirror image of the other
Tally – Use of sets of 5 marks to record a total, 𝍸

Term (n^{th}) – One of the numbers in a sequence
Tessellation – Patterns of shapes that fit together without any gaps
Tetrahedron – A 3D shape with four triangular faces, a triangular-based pyramid
Three-dimensional (3D) – Having three dimensions, length, width and height
Transformation – A change in position or size
Translation – To move an item in any direction without rotating it
Trapezium – A 2D shape with four sides, two of them being parallel
Tree diagram – A diagram used to display the probability of different outcomes with each branch representing one possible outcome
Triangle – A 2D shape with three sides
Triple/treble – To multiply by three
Two-dimensional (2D) - Having two dimensions, length and width
Unit - One
Unit of measure – Standard amount or quantity
Variable – Something that varies, represented by a letter in algebra
Venn diagram – A diagram using circles to show relationships between sets
Vertex/vertices – The point where two sides meet, or three or more faces
Vertical – Perpendicular to the horizon
Volume – The amount of space occupied by a 3D object
X-axis – The horizontal axis on a graph
Y-axis – The vertical axis on a graph
Y-intercept – Where a line intersects the y-axis