St George's Central CE Primary School and Nursery

Mathematics: vocabulary and meanings

'Never settle for less than your best'

Jesus said, 'I am the light of the world. Whoever follows Me will not walk in darkness, but will have the light of life.' John 8:12

A

Acute – An angle that when measured is less than 90^0

Add/Addition – Plus the two numbers together, e.g. 1 + 2 = 3

Algebra – Using letters in the space of unknown numbers.

Angle – The space, measured in degrees, between two lines that meet.

Approximate – To estimate using a number, amount or total. <u>Arc</u> – A section of the circumference of a circle.

Area – The space inside a shape. This is calculated in different ways depending on the shape.

Average – Also known as the mean, the average looks at all the results and add them together. You then divide by the total that there is. This gives an average score overall, taking into account all the data.

Axis – A set of axes have an *x* axis and a *y* axis.

B

Base – The bottom of something e.g. shape.

BIDMAS – The order in which you perform the operations. This stands for Brackets, Indices, Division, Multiplication, Addition and Subtraction.

Brackets – These are included in many maths questions and look like these ( ). You must complete the sum inside the brackets first.

C

Capacity – The amount a container can hold

Centre – The middle.

Circumference – The distance around the outside of a circle.

Calculate – Work out.

Congruent – This word is used when looking at shapes. It means the same.

Consecutive – Numbers that follow each other in an unbroken sequence.

Cube – A symmetrical 3D shape made up of 6 equal square faces. An example of this shape is a Rubix Cube.

Cube number – A cube number is a number times by itself 3 times. E.g./ 1 x 1 x 1 = 1, 2 x 2 x 2 = 8 ….

Cuboid – A 3D shape made up of 6 rectangular faces. An example of this shape is a cereal box.

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Cumulative Frequency – A running total of the frequencies.

Cylinder – A shape that has a pair of parallel sides and oval/circular bases. An example of this shape is a Pringles tube.

D

Decimal – Not a whole number e.g. 4.2, 5.690 etc.

Degree – A unit used for measuring angles.

Denominator – The bottom number of a fraction.

Diameter – The line that passes through a circle, from edge to edge, through the centre. It is also twice the radius measurement.

Division – Splitting a number into a smaller one.

Discrete – Discrete is a type of data. It can only take certain values. For example, if you are calculating with people, you cannot have ½ of a person.

E

Equation – Usually seen in Algebra. An equation will always have an equals sign. It is showing that one thing is the same as another.

Equilateral Triangle – A triangle with equal sides and angles.

Estimate – To make an approximation (guess).

Even – This can relate to the even numbers 2, 4, 6, 8 …. Or having an even chance in probability. This mean you have the same chance as one thing happening than the other.

Expand – Make bigger! An example could be: Expand 3(x + 2). This means get rid of the brackets, equaling 3x + 6.

Expression – Symbols that represent a number or quantity.

Exterior – Outside.

F

Factor – A factor is a number that can go into other numbers. E.g. The factors of 6 are; 1,2,3,6 because 1 x 6 = 6 and 2 x 3 = 6.

Factorise – This is the opposite of expanding. Factorise means putting the brackets back in by looking for common factors. E.g. 4x + 4 = 4(x + 1).

Fraction – A fraction is part of a whole. The amount which the whole is spilt up into, in down to the denominator. E.g. 1/5 is 1 out of 5 equal parts.

Frequency – Frequency means the total number.

Formula – A rule defined by symbols. E.g./ The formula for the Area of a rectangle = l x w (Length X Width).

G

> - Means greater than or more than.

H

Heptagon – A 7 sided shape Hexagon – A 6 sided shape

Hypotenuse – The longest side on a right angled triangle.

I

Interior – Inside.

Infinity – Numbers that go on forever.

Isosceles – A triangle that has two equal sides and angles.

L

< - Means Less than.

M

Median – After putting your data in order, the median is the middle value.

Midpoint – In the middle of a line or two points.

Multiple – A number that can be divided by another number without a remainder. The multiples of 5 are 5, 10, 15, 20 etc. (TRICK: It's the numbers in its times table!).

Mode – The most common data value.

N

Numerator – The top number of a fraction.

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O

Obtuse – An angle that is greater than 90° but less than 180°.

Opposite Angles – These are equal.

P

Parallel – This is used to describe two lines that will never meet.

Pentagon – A 5 sided shape.

Perimeter – The distance area the outside of a shape.

Perpendicular – A straight line at an angle of 90° to another given line. A good example of this is the x and y axis. These 2 lines are Perpendicular to each other.

Pi – An irrational number that is used to calculate the circumference and area of a circle.

Polygon – The name for the family of 2-D shapes. <u>Product –</u> Multiply the terms.

Prime – A number that can be divided ONLY by 1 and itself. 1 is not the first prime number!

Prism – A 3D shape with 2 triangular faces. A real life example of a prism is a Toblerone tube.

Probability – The chance of something happening. This can be written as a fraction, decimal or percentage. All probabilities must add up to 1.

Product – The result when two numbers are multiplied together.

Q

Quadrilateral – A word used to describe a 4 sided shape.

Qualitative Data – Data categories such as food, sport, hobbies.

Quantitative Data – Data that can be counted or measured.

R

Radius – A line inside a circle. It goes from the centre to the edge of the circle, and if half the diameter.

Range – Measures the spread of a data set. This is calculated by taking the lowest number away from the highest number.

Ratio – To split a number/amount/ingredients into parts. Usually in the form n : r which means n to r.

Rational – A real number.

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Reciprocal – The inverse of a number. One of two numbers whose product is 1 e.g 1/5 and 5, 1/8 and 8.

Recurring Decimal – A decimal which has repeating digits.

Reflection – A mirror view.

Reflex Angle – A reflex angle is greater than 180°.

Revolution – A whole turn (360°)

Rhombus – A parallelogram based on a square <u>Right Angle</u> – A right angle is a 90° angle.

Rotation – To turn an object

S

Sample – A selection of a whole group.

Sample Space – All the possible outcomes that could happen from an experiment.

Scale Factor – A number expressing how large or small the change of size (enlargement) of a shape is.

Scalene – A type of Triangle that has 3 unequal sides.

Sector – A part of circle that is made up of 2 radius measurements and a part of the circumference of a circle.

Segment – A part of a circle bound by a chord.

Sequence – An ordered set of number. This follows a particular pattern

Simplify – Make smaller

Solve – Work out

Subtraction – Take away

Sum – The total when all the parts are added together.

Surface Area – The total area of all the surfaces on a 3D shape.

Square number – A result of a number times by itself.

Square root – A number when multiplied by itself gives the original number

Symmetry – An object is symmetrical when one half is the mirror image of another half.

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T

Tangent – A straight line that touches a curve or curved surface at a point. These can be found touching the outer of a circle.

Term – A number in a sequence.

Tessellation – A pattern of shapes that fit together with no gaps.

Trapezium – a 4 sided shape with 2 parallel sides.

Transformation – To manipulate a shape. In total, there are four transformations. Can you think of what they are?

Translation – To move a shape left/right then up/down. This is usually given to use in vector form.

U

Unlikely – Probably won't happen.

V

Variable – A letter than represents a value e.g/ n + 10.

Vertically Opposite Angles – These are angles opposite each other, and are equal in size.

Vertex (Vertices) – Points/corners on a shape.

Volume – The space inside a 3D shape. This is measured in cubic units.

W

Width – Distance across from side to side.

X

X axis – the horizontal axis on a graph.

Y

Y axis – The vertical axis on a graph.

Z

Zero – No value. Worth nothing.

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