GCSE MATHS KEYWORDS

A	
Acute angle	An angle less than 90°.
Adjacent	Adjacent sides are next to each other and are joined by a common vertex.
Algebra	Algebra is the branch of mathematics where symbols or letters are used to represent numbers.
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 square metres.
Asymmetrical	A shape which has no lines of symmetry.
Average	A value to best represent a set of data. There are three type of average - the mean, the median and the mode.
Axis	An axis is one of the lines used to locate a point in a coordinate system.
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.

Brackets	Used to determine the order in which operations are carried out. For example, 3 + 4 x 2 = 11 but (3 + 4) x 2 = 14.
	C
Calculate	To work out the value of something. This does not have to mean you need a calculator!
Centilitre (cl)	A measure of volume. 100 centilitres = 1 litre (100 cl = 1 l). 1 centilitre = 10 millilitres (1 cl = 10 ml).
Centimetre (cm)	A measure of distance. 1 centimetre = 10 millimetres. (1 cm = 10 mm). 100 centimetres = 1 metre. (100 cm = 1 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	If you can place a shape exactly on top of another then they are said to be congruent. You may rotate, reflex or translate the shape.
Constant	A letter or symbol whose value always stays the same. The constant Π is a common example.
Credit	To add money to a bank account. For example, I had £500 credited to my bank account.
Cross section	The end section created when you slice a 3D shape along it's length.
Cube number	The product when an integer is multiplied by itself twice. For example 5 cubed = 5 x 5 x 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.

Debit	To take out money from a bank account. For example, £400 was debited from my account.
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.
Difference	Subtract the smaller value from the larger value to find the difference between two numbers.
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. E.g. 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 x 5.94 is roughly equal to 30 x 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. E.g. 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).
Figures	Another name for numbers. For example one thousand and fifty in figures is 1050.
Formula	An equation used to describe a relationship between two or more variables.
Frequency	How many times something happens. Another word for 'total'.
Frequency density	The frequency divided by the class width.
G	
Gradient	How steep a line is. Found by dividing the distance up by the distance across.
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.
Hexagon	A six sided polygon.
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 (1l = 1000 ml).
Loci	The plural of locus.
Locus	A collection of points which are the same distance from another point or line.
Lower range	The smallest value in a set of data.
	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. A type of average.
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 tied then there is two modes. If more than two values are tied then there is no mode. A type of average.
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.
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.
Perimeter	The distance around a shape.
Perpendicular	Two or more lines which meet at right angles.
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.
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 take away 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. E.g. the reciprocal of 3 is 1/3., the reciprocal of 3/4 is 4/3.
Recurring	A decimal which never ends but repeats all or parts of the sequence of numbers after the decimal point. E.g 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	
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 3D 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.
Sum	The answer when two or more values are added together.
Surface area	To 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 a 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 down the branches.
Triangle	A three sided polygon.
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.
Upper range	The largest value in a set of data.
V	
Value	A numerical amount or quantity.
Variable	A letter which we don't know the value of.
Volume	The amount an object can hold. E.g. a bottle of cola has a volume of 2 litres.
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.