

Collecting like terms
 Rounding (sf)
 Bar Charts
 Ordering Fractions
 Pictograms
 Probability (=1)
 Types of numbers
 Angles around a point

Best Buys
 Conversion Graphs
 Rotation & Reflection
 Factorise (Single Brackets)
 Standard Form
 Elevations
 Speed Distance Time
 Similar Shapes

Compound Interest
 Error Intervals (2dp)
 Factorise and Solve Quads
 n^{th} term (linear)
 Relative Frequency
 Loci and construction
 Ratio & Fraction Problem
 Calculator/Display Calculations

GCSE Maths – Foundation Tier : LEARN THESE FACTS! You will not be given them in the exam.

Types of number:

odd – ends in 1, 3, 5, 7, 9
even – ends in 0, 2, 4, 6, 8 (is divisible by 2)
factor – divides exactly into a number
 eg 5 is a factor of 10
multiple – in the times table of a number
 eg 20 is a multiple of 10
square number – can be written as a number multiplied by itself eg 9 is a square number because it can be written as 3×3 .
 The first 7 square numbers are 1, 4, 9, 16, 25, 36, 49, ...
prime number - can only be divided by one and itself: 2, 3, 5, 7, 11, 13, 17... are prime

Metric units:

Length – use mm, cm, m, km
Area – use mm^2 , cm^2 , m^2 , km^2 , (hectares)
Volume – use mm^3 , cm^3 , m^3 , ml, litres
Mass – use g, kg

Conversions:
 1cm = 10mm
 1m = 100cm
 1km = 1000m
 1 litre = 1000 ml
 1kg = 1000g
 1kg = 2.2 pounds
 5 miles = 8 km

Percentage means “fraction out of 100”

50% = 0.5 = $\frac{1}{2}$ divide by 2
 25% = 0.25 = $\frac{1}{4}$ halve then halve again
 10% = 0.1 = $\frac{1}{10}$ divide by 10
 1% = 0.01 = $\frac{1}{100}$ divide by 100

Key formulae:

Circumference of circle = πd
 Area of rectangle = length x width
 Area of triangle = base x height \div 2
 Area of circle = πr^2
 Volume of cuboid = length x width x height
 Volume of prism = cross-section area x length
 perimeter is the distance round the edge
 area is the space inside the shape

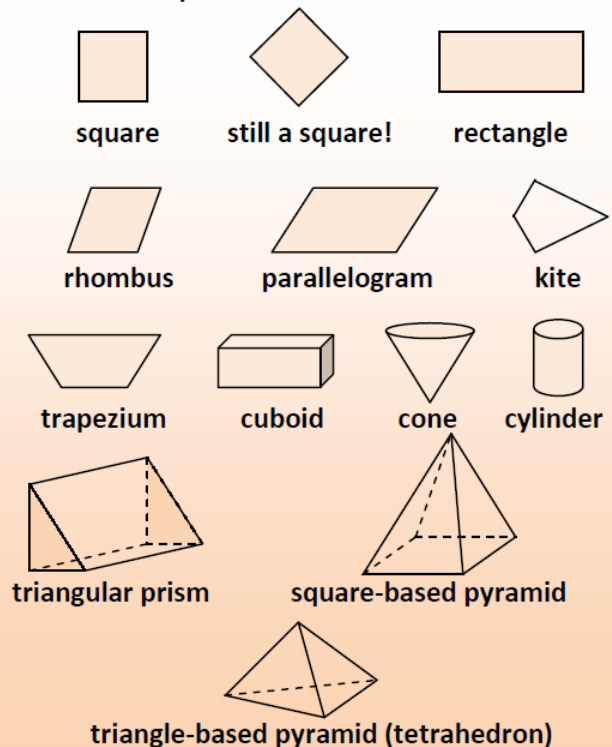
Special words:

sum – add the numbers together
product – multiply the numbers
difference – biggest take away the smallest
estimate – round the numbers first and give an approximate answer
solve – work out the value of the letter
correlation – the relationship between 2 variables, can be **positive**, **negative** or **no correlation**. Draw a line of best fit if correlation is positive/negative.
expand – multiply out brackets $2(x+3)=2x+6$
factorise – put brackets back in $x^2-3x = x(x-3)$
tessellate – fit shapes together with no gaps

Averages:

mode/modal – the most common value or values
median – the middle value when they are in order
mean – add up all the values and divide by the number of terms
range – highest value take away the lowest value

Names of shapes:



Angle Rules: Opposite angles are equal

Angles on a straight line add up to 180°

Angles at a point add up to 360°

Angles in a triangle add up to 180°

Angles in a quadrilateral add up to 360°

Alternate angles in parallel lines (Z angles) are equal

Corresponding angles in parallel lines (F angles) are equal

Interior angles in parallel lines (C angles) add up to 180°

right angle



acute

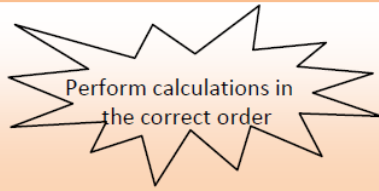


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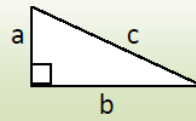


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BRACKETS
INDICES
DIVISION
MULTIPLICATION
ADDITION
SUBTRACTION



Pythagoras' theorem



$$a^2 + b^2 = c^2$$