

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 3x3.
 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

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

Metric units:

Length – use mm, cm, m, km
Area – use mm², cm², m², km², (hectares)
Volume – use mm³, cm³, m³, ml, litres
Mass – use g, kg

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

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

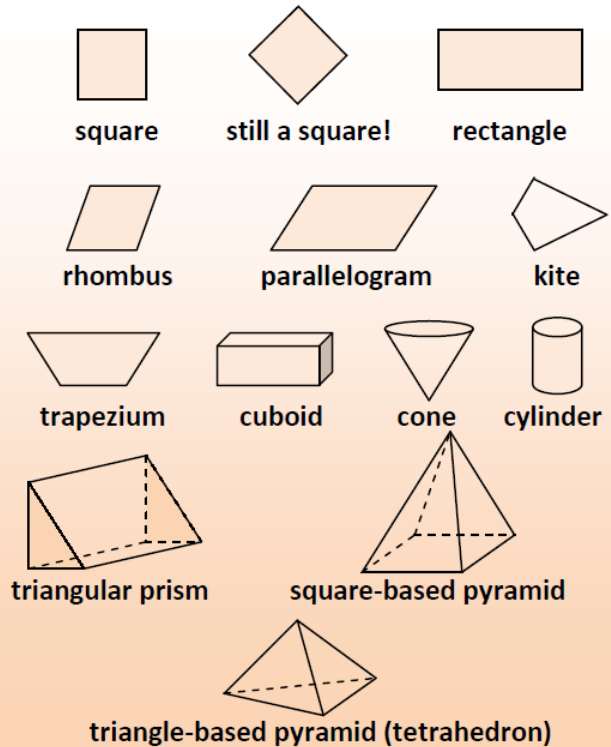
Percentage means “fraction out of 100”

50% = 0.5 = 1/2 divide by 2
 25% = 0.25 = 1/4 halve then halve again
 10% = 0.1 = 1/10 divide by 10
 1% = 0.01 = 1/100 divide by 100

Key formulae:

Circumference of circle = πd
Area of rectangle = length x width
Area of triangle = base x height ÷ 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

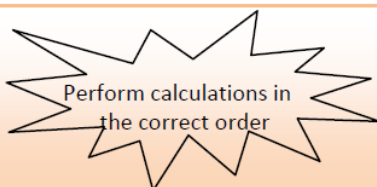
Names of shapes:



Angle Rules: Opposite angles are equal
 Angles at a point add up to 360°
 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°

Angles on a straight line add up to 180°
 Angles in a triangle add up to 180°
 right angle
 acute obtuse reflex

BRACKETS
 INDICES
 DIVISION
 MULTIPLICATION
 ADDITION
 SUBTRACTION



Pythagoras' theorem

