Half Term 1 | Half Term 2 | Half Term 3 | Half Term 4 | Half Term 5

NUMBER

> means greater than
< means less than

≥ means greater than or equal to,
≤ means less than or equal to

An integer is a positive or negative whole number.

When you multiply by 10, 100, 1000 etc the digits move to the left
When you divide by 10, 100, 1000 etc the digits move to the right

The first significant figure in a number is the first non-zero digit.

Addition and multiplication are commutative meaning it doesn't matter what order you do the calculation in you get the same result eg 5 + 9 = 9 + 5 = 14
or 3 x 6 = 6 x 3 = 18

The first 10 square numbers are:
1, 4, 9, 16, 25, 36, 49, 64, 81, 100

The first 5 cube numbers are:
1, 8, 27, 64, 125

BIDMAS tells you the order you do a calculation in and stands for:
B rackets
I ndices
D ivision
M ultiplication
A ddition
S ubtraction

The square root symbol is denoted by $\sqrt{\ }$

A prime number is a number which has exactly two factors.

A factor of a number is one that divides into it without remainder.

The first 10 prime numbers are:
2, 3, 5, 7, 11, 13, 17, 19, 23, 29

A multiple is a number which is part of another number's times table. E.g. 35 is a multiple of 5.

The numerator of a fraction is the number on the top.

A mixed number is written as a whole number and a fraction.

The denominator a fraction is the number on the bottom.

To find an equivalent fraction, multiply the numerator and denominator by the same amount.

$\frac{1}{10} = 0.1$, $\frac{1}{100} = 0.01$, $\frac{1}{1000} = 0.001$

An improper fraction is one where the numerator is bigger than the denominator.

If the numerator and denominator are the same, the answer is a whole eg $\frac{3}{3} = 1$

The lowest common multiple of a pair of numbers is the smallest number that is in both their times tables.

An irrational number is a number that cannot be written as a fraction.

$\frac{1}{4} = 0.25$, $\frac{1}{2} = 0.5$, $\frac{3}{4} = 0.75$

DATA

Discrete data is data that takes on certain values.

To find the mean of a set of data, find the total of the values and divide by the number of bits of data.

Discrete data is data that takes on certain values.

Continuous data is data that can be measured and has an infinite number of possible values within a range.

A hypothesis is a theory or prediction to be tested.

The median of a set of data is the middle number when arranged in size order.

The range of a set of data is the largest value subtract the smallest value.

The lower quartile of a set of data is the data value a quarter of the way into the set of data when arranged in size order.

The mode of a set of data is the most common number.

GEOMETRY + MEASURE

10mm = 1cm
100cm = 1m
1000m = 1km

1000g = 1Kg
1000Kg = 1 Tonne

1000ml = 1 litre
10ml = 1cl
100cl = 1 litre

The perimeter of a shape is the total distance around the outside of a shape.

Area of a rectangle = length x width

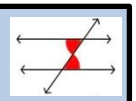
The diameter of a circle is the distance across a circle which passes through the centre.

The circumference of a circle is the distance all the way round the outside.

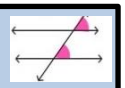
The angles on a straight line add up to 180°.
The angles round a point add up to 360°.

Angles in a triangle add up to 180°.

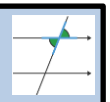
Alternate angles are equal.



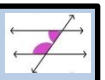
Corresponding angles are equal.



Vertically opposite angles are equal.



Supplementary angles add to 180°.



ALGEBRA

An expression is a mathematical phrase that does not contain an equals sign eg 4x+7

An equation is a mathematical statement showing that two things are equal and can usually be solved.

Qualitative data is data that cannot be given as a number.

YEAR 7 CORE KNOWLEDGE

Quantitative data is data that can be given as a number.

An outlier is a data value that does not fit the trend of the rest of the data.