

Maths Knowledge Organiser Year Four

Key Vocabulary and symbols

Decimals - a number in the base ten system written with a decimal point. Money amounts are written as decimals.

Tenths - one of ten equal parts of a whole; $1/10$.

Hundredths - one of one hundred equal parts of a whole; 0.01 or $1/100$.

Area is the term used to **define** the amount of space taken up by a 2D shape or surface. We measure **area** in square units: cm^2 or m^2 . **Area** is calculated by multiplying the length of a shape by its width.

The **perimeter** is the distance all the way around the outside of a 2D shape. To work out the **perimeter**, add up the lengths of all the sides.

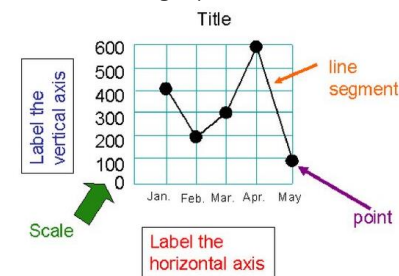
< less than

> greater than

= equivalent to

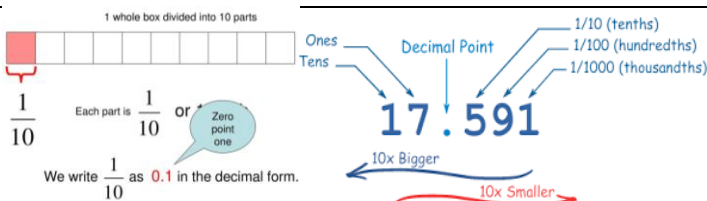
Statistics

This is a line graph



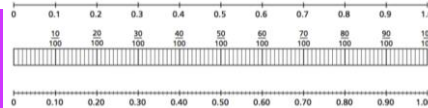
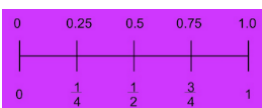
Line graphs show how something changes, usually over time. The **data** (information) is then plotted on the **graph** as a series of points joined with straight **lines (segments)**. The vertical and horizontal axis show what is being measured. Time goes on the horizontal axis.

Fractions and decimals



Equivalents

$1/10$ or 0.1 is equivalent to $10/100$ or 0.10

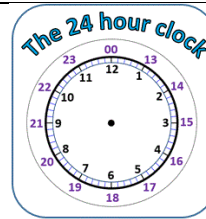


$1/4$ is the same as 0.25

Place Value Columns

thousands	hundreds	tens	ones	decimal point	tenths	hundredths	thousandths
1,000	100	10	1	.	/10	/100	/1000

Time

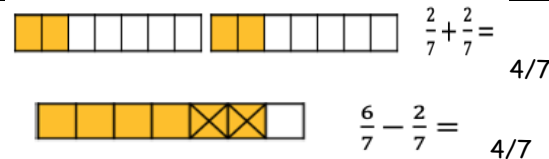


Digital
24 hours
12 hours run from midnight to noon (am hours)
12 hours run from noon to midnight (pm hours)

Roman Numerals - large numbers

I	V	X	L	C	D	M
1	5	10	50	100	500	1000

Adding and Subtracting Fractions Same Denominator







When we add or subtract fractions, if the denominators are the same, we just add or subtract the numerators.

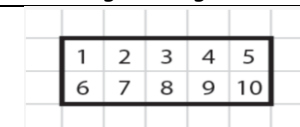
Times Tables

X	1	2	3	4	5	6	7	8	9	10	11	12
7	7	14	21	28	35	42	49	56	63	70	77	84
9	9	18	27	36	45	54	63	72	81	90	99	108
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

Triangles

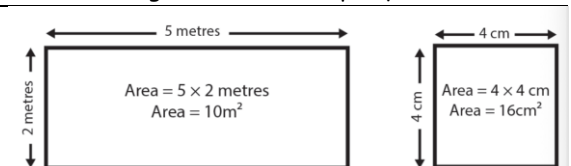
An equilateral triangle	The length of all 3 sides are equal. All 3 angles are equal.	
A right angle triangle	Has one 90° angle or one right angle.	
An isosceles triangle	At least two equal sides and two equal angles.	
A scalene triangle	All the sides and angles are different lengths.	

Calculating Area (grid method)



When a shape is drawn on a scaled grid you can find the area by counting the number of grid squares inside the shape.

Calculating the area of simple quadrilaterals



To find the area of a rectangle, multiply its height by its width

To find the area of a square, you only need to find the length of one of the sides (as each side is the same length) and multiply this by itself.

