YEAR 4 MATHS KNOWLEDGE ORGANISER

Multiplication and division vocabulary

Term	Definition	Example
factor	a number that divides exactly into another number	factors of 12 = 1, 2, 3, 4, 6, 12
common factor	factors of two numbers that are the same	common factors of 8 and 12 = 1, 2, 4
product	result of two factors multiplied against each other	3 x 5 = 15
multiple	a number in another number's times table	multiples of 9 = 9, 18, 27, 36…

Roman numerals

1	I	50	L
5	V	100	C
10	X		

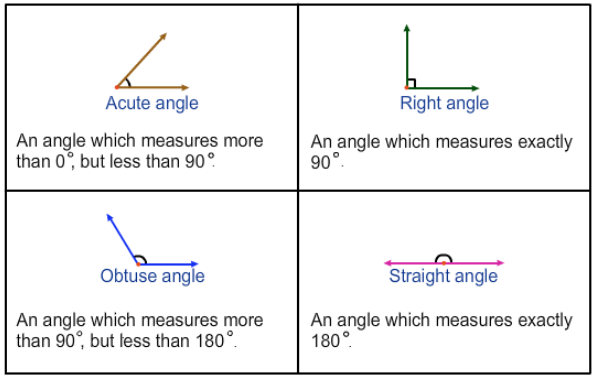
Measurement conversions

Month	Days
January	31
February	28 (29 in leap year)
March	31
June	30
July	31
August	31
September	30
October	31
November	30
December	31
1 year = 365 days (≈ 52 weeks) Leap year = 366 days	

1 **cent**imetre	10mm
1 metre	100cm
1 **kilo**metre	1,000 m
1 **kilo**gram	1,000 grams
1 litre	1,000 **milli**litres

Co-ordinates

Read co-ordinates along the x axis (horizontal) first, then the y axis (vertical). E.g. (3,4) = go right 3, down 4.



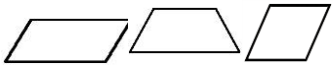
2D shapes

Name	No. of sides
triangle	3
quadrilateral	4
pentagon	5
hexagon	6
heptagon	7
octagon	8
nonagon	9
decagon	10

polygon = shape with straight sides
regular = all sides/angles the same
irregular = sides/angles **not** same

Types of triangle

Types of quadrilateral

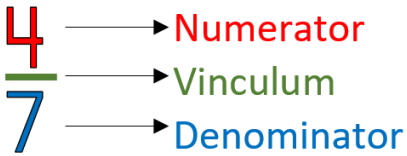


3D shapes

	square-based pyramid	triangular-based pyramid	triangular prism
faces (the flat sides)	5	4	5
edges	8	6	9
vertices (the points where the edges meet)	5	4	6

Fractions & decimals

1/20	0.05	÷ 20
1/10	0.1	÷ 10
1/5	0.2	÷ 5
¼	0.25	÷ 4
½	0.5	÷ 2
¾	0.75	÷ 4, x3
1	1	÷ 1
Equivalent fractions		
1/4	2/8	3/12
1/3	2/6	3/9
1/2	2/4	3/6
3/4	6/8	9/12
1/5	2/10	3/15



Area is the amount of space inside a 2D shape.

Perimeter is the total **distance** around the outside of a 2D shape.

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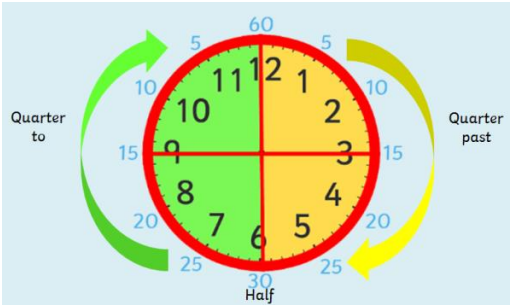
Thousands	Hundreds	Tens	Ones
1000	100 100	10 10	1 1 1 1

trapezium	
parallelogram	
rhombus	
rectangles	
kite	
arrowhead	
irregular quadrilaterals	



Add and subtract fractions with same denominator

$\frac{1}{3} + \frac{1}{3} = \frac{2}{3}$

$\frac{8}{6} - \frac{5}{6} = \frac{3}{6}$

$\frac{2}{8} + \frac{4}{8} + \frac{1}{8} = \frac{7}{8}$

$\frac{3}{4} - \frac{2}{4} = \frac{1}{4}$