

Y6 Maths Knowledge Organiser

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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
prime number	a number with only 2 factors: 1 and itself	2, 3, 5, 7, 11, 13, 17, 19...
composite number	a number with more than two factors	12 (it has 6 factors)
prime factor	a factor that is prime	prime factors of 12 = 2, 3
multiple	a number in another number's times table	multiples of 9 = 9, 18, 27, 36...
common multiple	multiples of two numbers that are the same	common multiples of 4 and 6 = 12, 24...
square numbers	the result when a number has been multiplied by itself	25 ($5^2 = 5 \times 5$) 49 ($7^2 = 7 \times 7$)
cube numbers	the result when a number has been multiplied by itself 3 times	8 ($2^3 = 2 \times 2 \times 2$) 27 ($3^3 = 3 \times 3 \times 3$)

Fractions, decimals & percentages

$\frac{1}{100}$	0.01	1%	$\div 100$
$\frac{1}{20}$	0.05	5%	$\div 20$
$\frac{1}{10}$	0.1	10%	$\div 10$
$\frac{1}{5}$	0.2	20%	$\div 5$
$\frac{1}{4}$	0.25	25%	$\div 4$
$\frac{1}{2}$	0.5	50%	$\div 2$
$\frac{3}{4}$	0.75	75%	$\div 4, \times 3$
1	1	100%	$\div 1$

Angles

full turn	360°
half turn	180°
right angle	90°
acute angle	$< 90^\circ$
obtuse angle	$> 90^\circ$
reflex angle	$> 180^\circ$
angles on a straight line	180°
angles inside a triangle	180°
angles inside a quadrilateral	360°

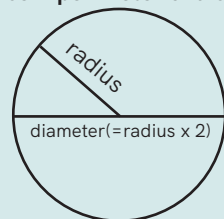
Shape vocabulary

horizontal line

vertical line

parallel lines

Perpendicular lines
(at right angles)



perimeter = measure around the edge
(**circumference** = perimeter of a circle)

Roman numerals

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

2D shapes

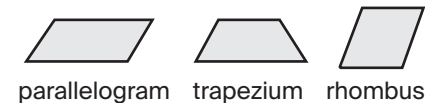
quadrilateral	4	octagon	8
pentagon	5	nonagon	9
hexagon	6	decagon	10
heptagon	7		

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

Types of triangle



Types of quadrilateral



Area

is the amount of space inside a 2D shape usually measured in cm^2 or m^2 .

Area of a triangle

$$= (\text{base} \times \text{height}) \div 2$$

Area of a parallelogram

$$= \text{base} \times \text{height}$$

(Height = perpendicular height)

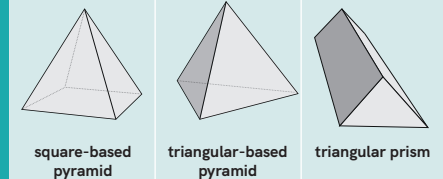
Measurement conversions

Month	Days		
January	31	1 centimetre	10mm
February	28 (29 in leap year)	1 metre	100cm
March	31	1 kilometre	1,000 m
April	30		
May	31	1 mile	1.6 km
June	30	1 kilometre	0.625 ($\frac{5}{8}$) mile
July	31		
August	31	1 kilogram	1,000 grams
September	30		
October	31	1 litre	1,000 millilitres
November	30		
December	31		
1 year = 365 days (≈ 52 weeks)			
Leap year = 366 days			

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.

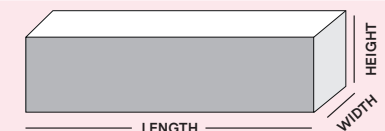
3D shapes



	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

Volume

Volume = the amount of space a 3D shape takes up, usually measured in cm^3 or m^3



$$\text{Volume of a cuboid} = \text{length} \times \text{width} \times \text{height}$$

The mean

The mean is a type of average. To find the mean, add up all the numbers and divide by how many there are.

E.g. the mean of 4, 5, 3, 4 is 4.

(Because $4 + 5 + 3 + 4 = 16$, and $16 \div 4 = 4$)