



Maths

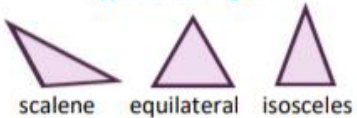
### 2D shapes

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

Regular = all sides/angles the same

Irregular = sides/angles not same

#### Types of triangle



#### Types of quadrilateral



Parallelogram Trapezium Rhombus

#### AREA

is the amount of space inside a 2D shape usually measured in cm<sup>2</sup> or m<sup>2</sup>.

#### Area of a triangle

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

#### Area of a parallelogram

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

### 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...
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%
$\frac{1}{20}$	0.05	5%
$\frac{1}{10}$	0.1	10%
$\frac{1}{8}$	0.125	12.5%
$\frac{1}{5}$	0.2	20%
$\frac{1}{4}$	0.25	25%
$\frac{1}{3}$	0.33	33%
$\frac{2}{5}$	0.4	40%
$\frac{1}{2}$	0.5	50%
$\frac{3}{4}$	0.75	75%
1	1	100%

### Measurement conversions

1 centimetre	10mm
1 metre	100cm
1 kilometre	1,000 m
1 mile	1.6 km
8 kilometre	5 miles
1 kilogram	1,000 grams
1 litre	1,000 millilitres

Volume of a cuboid = length x width x height



### Shape vocabulary

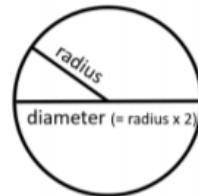
Perimeter = measure around the edge of a shape.

horizontal line

parallel lines

vertical line

perpendicular lines  
(at right angles)



Circumference = perimeter of a circle

### 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  $16 \div 4 = 4$ )

### Roman numerals

1	I	100	C
5	V	500	D
10	X	1000	M
50	L	Remember – No more than 3 in a row!	

**Angles:** Full turn = 360° Half turn = 180° Right angle = 90° acute angle = <90° obtuse angle = > 90° reflex angle = >180° angles on a straight line = 180° opposite angles = same angles in a triangle = 180° angles in a quadrilateral = 360°

Thirty days hath September, April, June, and November, all the rest have **thirty-one** except February which has 28.

### 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.