Even number

2

A number that can be shared by 2 without a remainder.

Odd number

1

A number that can't be divided by two without a fraction

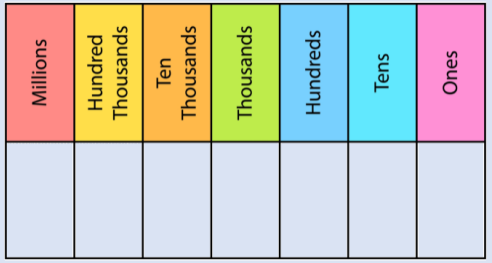
Digit

Any of the numerals from 0 to 9.

Equal

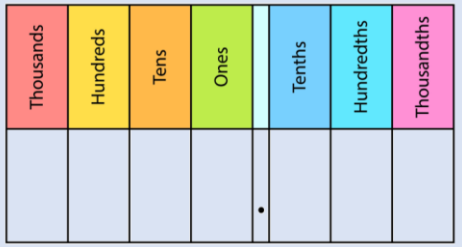
Two or more things which have the same value.

Place Value



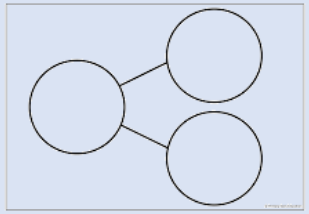
The value of each digit that appears in a number.

Place Value



The value of each digit that appears in a number.

Part whole



A diagram to show a number split into parts.

Partition

637

600 30 7

Splitting a number into smaller parts.

Integer

22

Any whole number not including 0

Rounding

55 → 60

313 → 310

Changing a number to make it easier to calculate with.

Estimate

A rough calculation of the value, number, quantity.

Approximate

≈

A value or quantity that is nearly but not exactly correct.

Numeral

153

numeral

A number made up of digits.

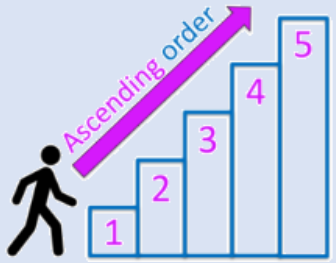
Number line

A line on which numbers are marked at intervals.

Place Holder

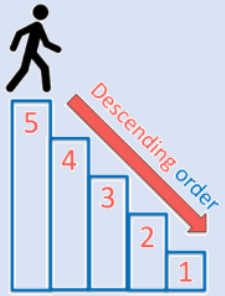
A zero used to keep other digits in the correct place value column.

Ascending



increasing in size

Descending



decreasing in size

Roman Numerals

I II III IV
VI VII VIII
X XI XII

Numerals used in the Roman number system

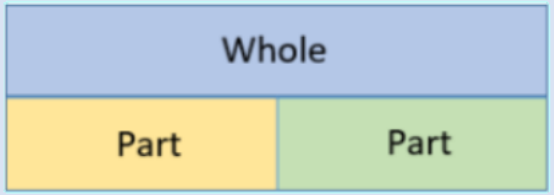
Negative

Numbers which are less than 0.

Positive

Numbers which are more than 0.

Bar Model



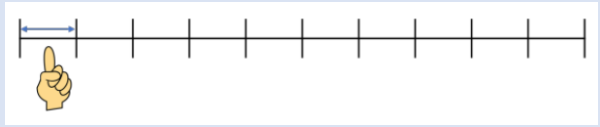
A diagram to show a number split into parts.

Power of 10

1,000
10,000
100,000
1,000,000

Any number where there is a single 1 and the rest of the digits are 0s.

Interval



The sections on a number line.

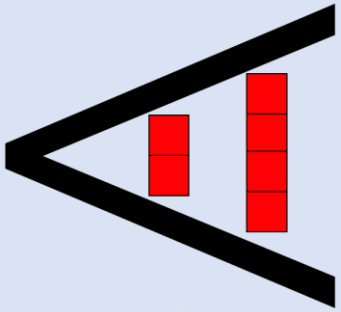
Inverse

Add ⟺ Subtract

Multiply ⟺ Divide

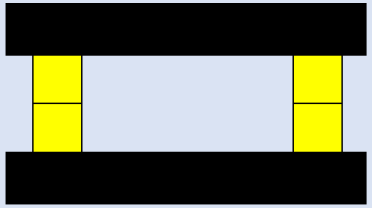
One operation that is the opposite of another.

Less Than



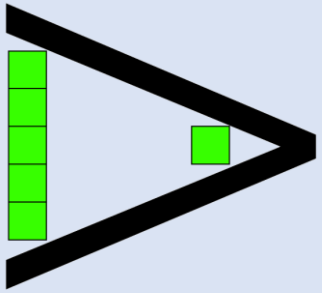
2 is less than 4.

Equal to



2 is equal to 2

Greater Than



5 is greater than 1

Addition

Adding two or more numbers together.

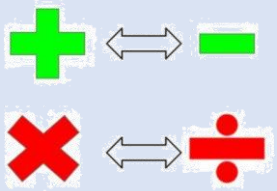
Take away

Taking one part away from the total.

Number bond

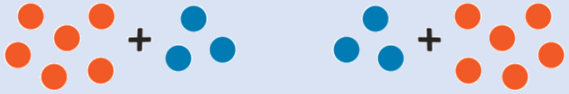
Two numbers we know that add together to make another. Normally 10 or 100.

Inverse



The opposite of another operation

Commutative



6 + 3 = 9 = 3 + 6

In addition and multiplication the numbers can go in any order and make the same answer

Plus

Adding two or more numbers together.

More

Adding two or more numbers together.

Sum

Adding two or more numbers together.

Altogether

Adding two or more numbers together.

Total

Adding two or more numbers together.

Increase

Adding two or more numbers together.

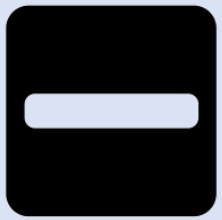
Minus

Taking one part away from the total.

Less

Taking one part away from the total.

Fewer



Taking one part away from the total

Decrease

Taking one part away from the total

Subtraction

Taking one part away from the total.

Difference

The result of subtracting one number from another.

Addend

$2 + 6 = 8$

A number that is added to another number.

Addend

$2 + 6 = 8$

A number that is added to another number.

Sum

$2 + 6 = 8$

The result of the addition of numbers.

Minuend

$6 - 2 = 4$

The number from which another number is being subtracted

Subtrahend

$6 - 2 = 4$

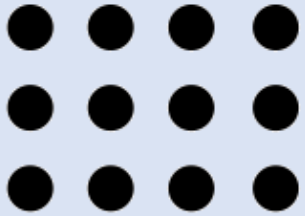
The number which is being subtracted.

Difference

$6 - 2 = 4$

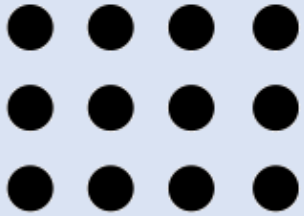
The result of subtracting one number from another.

Times



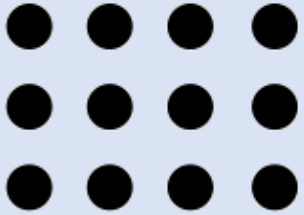
Where you take a number and add it to itself a number of times

Lots of



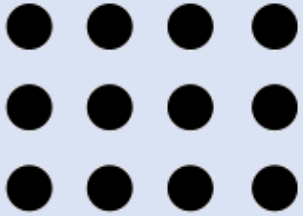
Where you take a number and add it to itself a number of times.

Repeated addition



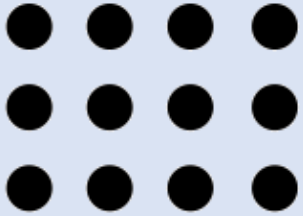
Where you take a number and add it to itself a number of times

Array



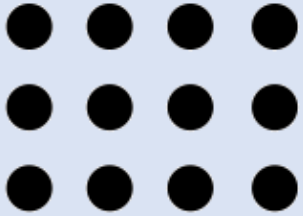
ordered collection of counters, numbers etc. in rows and columns.

Multiplication



Where you take a number and add it to itself a number of times.

Product



12

The result of two numbers multiplied together.

Short Division

```
     4  4  r3
6 | 2  5²7
```

Formal method to divide when the divisor is 1 digit.

Long Division

```
          2  8
15 |  4   3  2
      3   0  0   15 × 20
      1   3  2
      1   2  0   15 × 8
          1  2
```

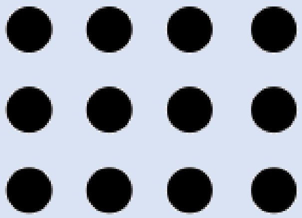
Formal method to divide when the divisor has 2 or more digits

Double

2 + 2 = 4

To add the same part twice. It is also the same as multiplying by 2.

Multiplication



Where you take a number and add it to itself a number of times.

Long Multiplication

```
     2 4
×    1 6
   2 4 0
   1 4 4
   3 8 4
```

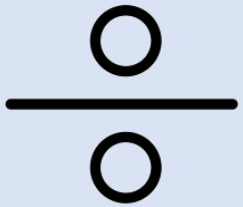
Formal method to multiply when the multiplier has 2 or more digits.

Short Multiplication

```
   2 1 3
×      3
   6 3 9
```

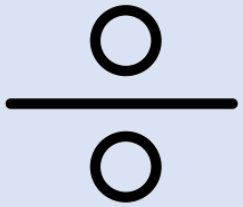
Formal method to multiply when the multiplier is 1 digit.

Divide



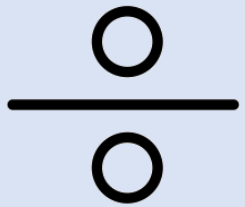
Sharing a number of object equally across groups.

Division



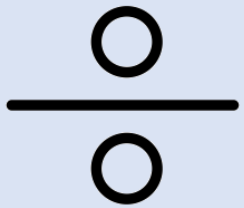
Sharing a number of object equally across groups.

Shared



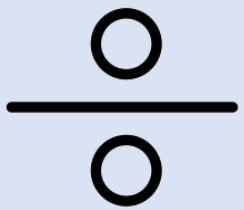
Sharing a number of object equally across groups

Shared equally



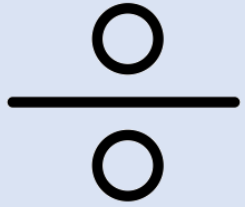
Sharing a number of object equally across groups

Equal groups



Sharing a number of object equally across groups

Divisible by



Sharing a number of object equally across groups

Dividend

24 ÷ 6 = 4

The number which is being divided.

Divisor

24 ÷ 6 = 4

The number which divides the dividend.

Quotient

24 ÷ 6 = 4

The result of a number being divided.

Multiplicand

4 x 5 = 20

The number of objects in each group.

Multiplier

4 x 5 = 20

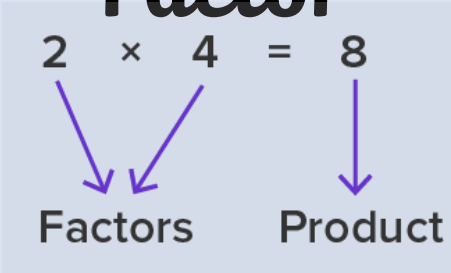
The number of equal groups.

Product

4 x 5 = 20

The result of the multiplication of two numbers.

Factor



Factors are positive integers that can be multiplied together to equal a given number.

Common factor

Factors of **30**: **1**, **2**, 3, **5**, 6, **10**, 15, 30

Factors of **20**: **1**, **2**, 4, **5**, **10**, 20

A factor shared between two numbers.

Multiple

Multiples of 6:

6 12 18

A multiple of a number is the product of that number and an integer.

Common multiple

Multiples of 6:

6 12 18 **24** 30 36 42 **48**

Multiples of 8:

8 16 **24** 32 40 **48** 56

A multiple shared by two or more numbers.

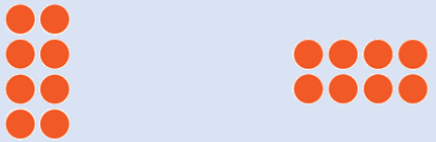
Prime number

1 2 3 4 5 6 7 8 9 10

Prime Numbers

A number that only has two factors, 1 and itself.

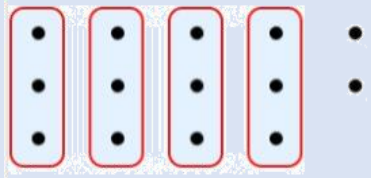
Commutative



4 x 2 = 8 = 2 x 4

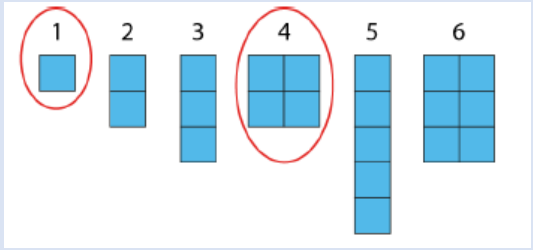
In addition and multiplication the numbers can go in any order and make the same answer

Remainder



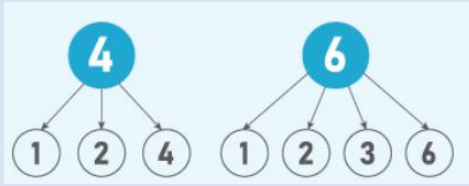
When the division requires a whole number quotient, the amount remaining after the operation is the remainder.

Square Number



A number which has an odd number of factors.

Composite Number



A number which has more than two factors.

Square Number

$4^2 = 4 \times 4$

A number which is a product of a factor multiplied by itself.

Cube Number

$4^3 = 4 \times 4 \times 4$

A number which is a product of a factor multiplied by itself and then itself again.

Expression

$3 + 2$

A string of numbers joined together by mathematical operations

Equation

$3 + 2 = 5$

An expression which is equivalent to another expression or a number.

Formula

$A = h \times w$

A mathematical relationship or rule expressed in symbols.

Expression

$3n + 2$

A string of symbols joined together by mathematical operations

Equation

$3n + 2 = 9$

An expression which is equivalent to another expression or a number.

Substitution

$n = 2$

$2n - 4 = 0$

Putting numbers in place of letters to calculate the value of an expression.

Algebra

$4n - 3 = 7$

Maths where the letters and symbols are used to represent numbers to find unknowns.

Unknown

n

A number which is not known in an expression or equation

Fraction

$\frac{2}{3}$

A fraction is a part of the whole.

Denominator

$\frac{}{\times}$

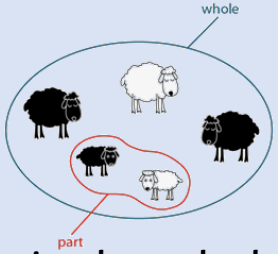
Found at the bottom of the fraction. It shows how many make a whole.

Numerator

$\frac{\times}{=}$

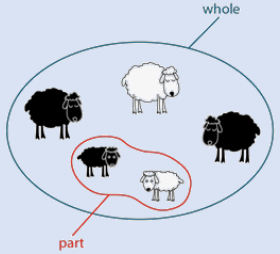
Found at the top of the fraction. It show how many parts of the whole are there.

Part



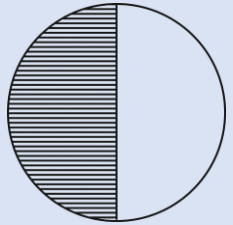
If ___ is the whole, then ___ is **part** of the whole.

Whole



If ___ is the **whole**, then ___ is part of the **whole**.

Half

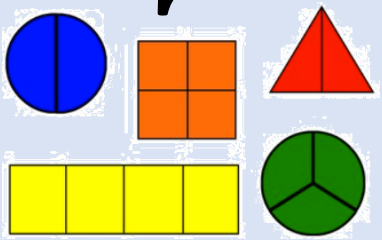


Splitting a number into 2 equal parts

Quarter

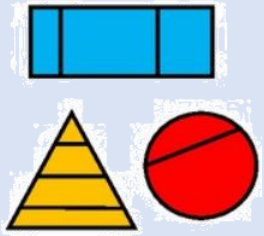
Splitting a number into 4 equal parts

Equal



Being the same in quantity, size or value.

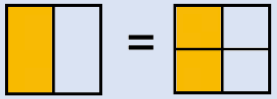
Unequal



Not being the same in quantity, size or value.

Equivalent Fraction

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



When two fractions have the same value

Proper fraction

$\frac{3}{5}$

A fraction where the numerator is less than the denominator so the fraction is less than one.

Improper fraction

$\frac{9}{4}$

When the numerator is greater than the denominator. The fraction is over 1.

Mixed number

$3\frac{4}{5}$

An integer and a proper fraction all shown together.

Unit Fraction

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

A fraction where the numerator is 1.

Non Unit Fraction

$\frac{2}{4}$ $\frac{2}{3}$ $\frac{3}{4}$

A fraction where the numerator is greater than 1.

Simplified Form

$\frac{3}{6} = \frac{1}{2}$ (÷ 3 above, ÷ 3 below)

When the highest common factor of the numerator and denominator is 1.

Tenth

$1 \text{ tenth} = \frac{1}{10} = 0.1$

When the whole is split into ten equal parts and one of them is shaded, this is one tenth of the whole.

Hundredth

$0.01 = \frac{1}{100}$

When the whole is split into one hundred equal parts and one of them is shaded, this is one hundredth of the whole.

Thousandth

$0.001 = \frac{1}{1000}$

When the whole is split into one thousand equal parts and one of them is shaded, this is one thousandth of the whole.

Decimal

34.5

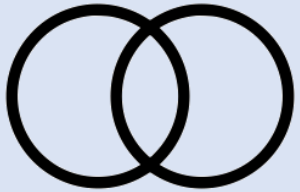
A whole number and the fractional part separated by a decimal point.

Percentage

$13\% = \frac{13}{100}$

A number or ratio that can be expressed as a fraction of 100.

Venn Diagram



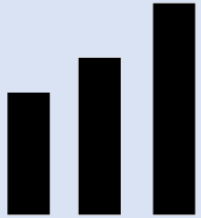
Sorting objects into two sets, if they fit into both sets they are placed in the middle.

Carroll diagram

	Even	Not even
Multiple of three	6, 12, 18, 24, 30	3, 9, 15, 21, 27, 33
Not multiple of three	2, 4, 8, 10, 14, 16, 20, 22, 24, 26, 28, 32	1, 5, 7, 11, 13, 17, 19, 23, 25, 29, 31

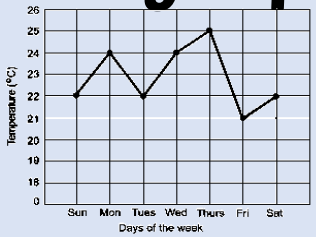
A way of showing data that follows two rules.

Bar chart



A way of showing groups of data.

Line graph



A graph where the data is joined by a straight line. Often shows change over time .

Pie Chart

A way of showing groups of data.

Frequency

3, 4, 2, 3, 3

The number of times a number occurs.

Mean

1 3 4 6 6 7 8

mean
average
5

Often means the average of something. To find it add the total off the data and divide it by the number of data points.

Average

Often meaning the 'mean' it is the middle value of a set of number.

Tally

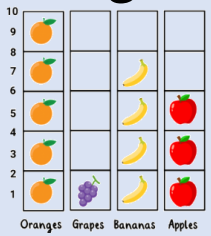
Each tally represents one piece of data.

Tally Chart

Tally	Frequency
||	2
𝍸 |||	8
𝍸 𝍸 |	11

A chart used to recording data as tallies.

Pictogram



A graph that represents data using pictures.

x

x.

Capacity

The amount of a material (often liquid or air) you can fit in a container.

Mass

The amount of matter in a solid, liquid or gas.

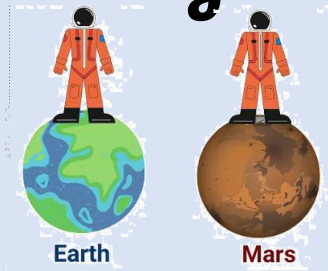
Height

How tall something is

Length

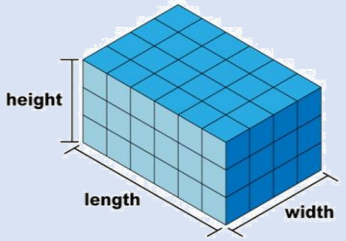
How long something is

Weight



The measure of how strongly gravity pulls on a mass

Volume



The amount of space an object occupies.

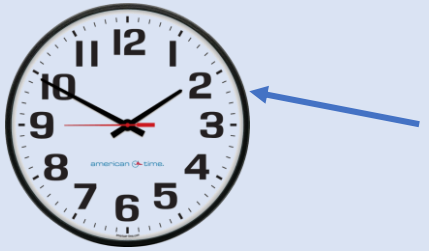
24 hour

Keeping time from midnight to midnight

12 hour

Keeping time where the day is split into two 12 hour periods a.m. and p.m.

Hour Hand



The shorter hand on the clock tracks the hours.

Minute Hand

The longer hand on the clock tracks the minutes.

Second Hand

The thin hand on the clock tracks the seconds.

Time

How long it takes to do something or when to do something.

Milli-

$$\frac{1}{1000}$$

one thousandth

Kilo

1,000

one thousand

Centi-

$$\frac{1}{100}$$

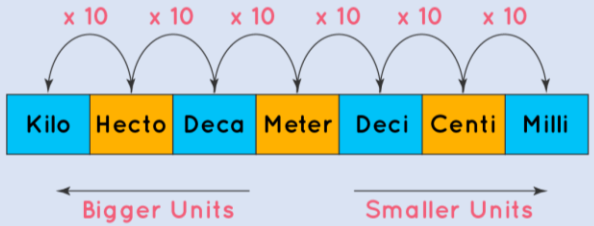
one hundredth

Deci-

$$\frac{1}{10}$$

one tenth

Metric

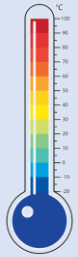


Measurements which use the base 10 system

Imperial

Measurements which do **not** use the metric system

Temperature



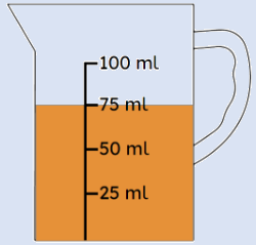
How hot or cold something is

Degrees Celsius

°C

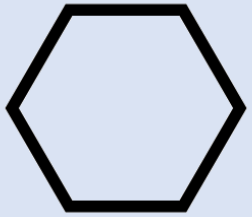
A unit used to measure temperature.

Scale



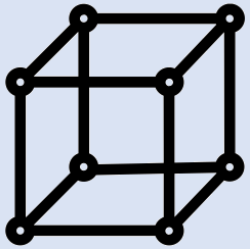
A number line with equal divisions for equal values.

2-D



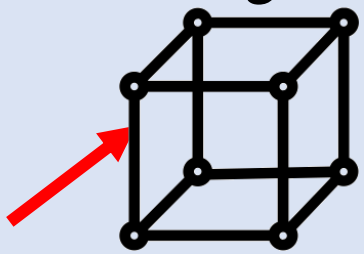
A shape that can lie flat on a plane

3-D



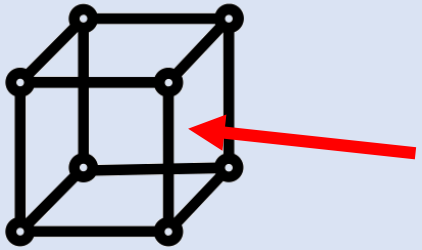
A shape that has a capacity (you can fill it with something).

Edge



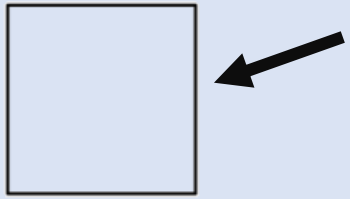
On a 3D shape where two faces meet

Face



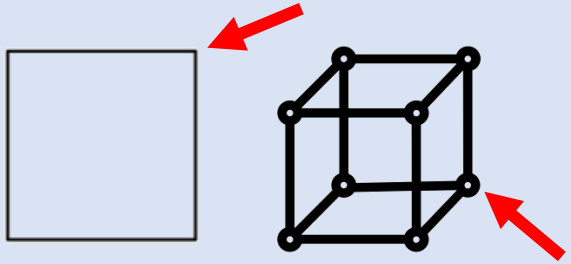
The flat surface of a 3D shape.

Side



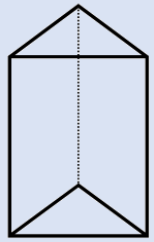
The part between two vertices on a 2d shape.

Vertex/Vertices



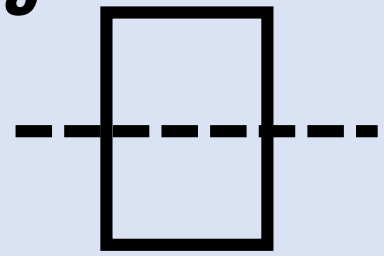
The point where two edges meet.

Prism



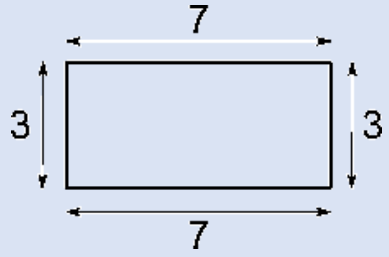
A 3D shape where both ends have the same 2d shape.

Symmetrical



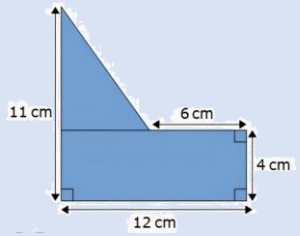
Being exactly the same down a mirror line.

Perimeter



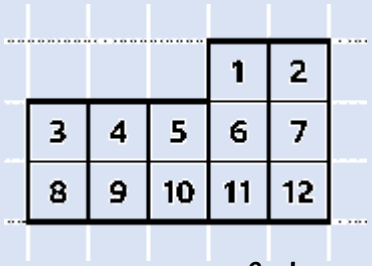
The length of the boundary of a shape

Compound shape



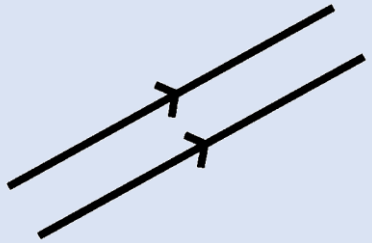
A shape made up of two or more other shapes.

Area



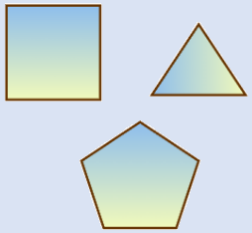
A measurement of the space inside a 2D shape

Parallel



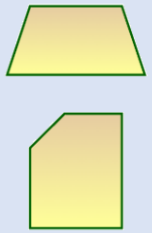
Two lines that will never meet.

Regular



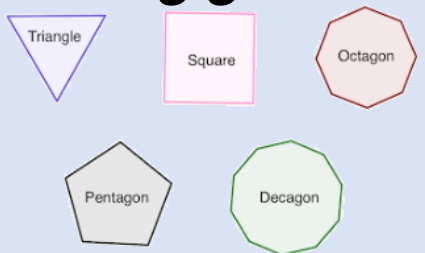
A 2D shape where all angles and sides measure the same.

Irregular



A 2D shape where angles and sides are **not** the same.

Polygon

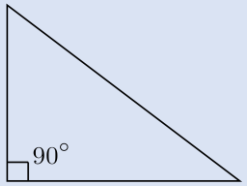


A 2D shape with at least 3 straight sides.

Scalene Triangle

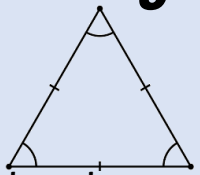
A triangle where all the sides are different and all the angles are different.

Right Angle Triangle



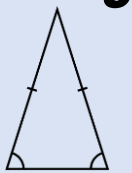
A triangle where one of the angles is a right angle.

Equilateral Triangle



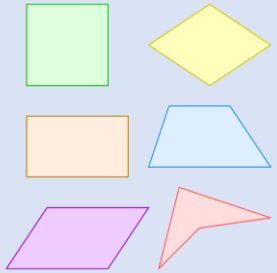
A triangle where all sides are equal and all the angles are equal.

Isosceles Triangle



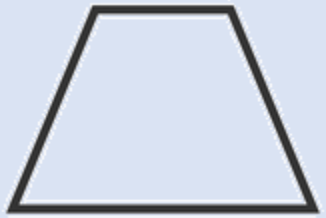
A triangle where two sides are equal and two angles are equal.

Quadrilateral



A shape with four straight sides and four angles.

Trapezium

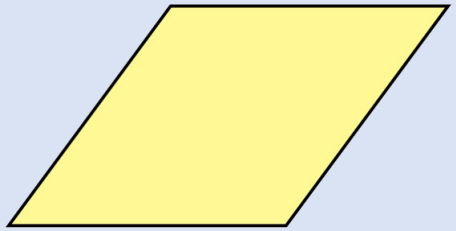


A four sided shape where one pair of lines are parallel.

Parallelogram

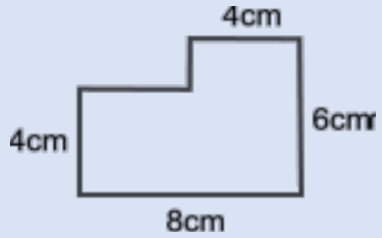
A four sided shape where opposite sides are parallel and equal length and opposite angles are equal.

Rhombus



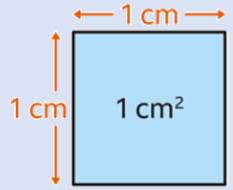
A four sided shape where all sides are equal. Opposite sides are parallel and opposite angles are equal.

Rectilinear



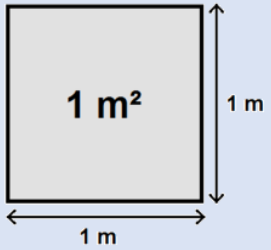
A 2D shape with straight sides and right angles.

Square centimetres



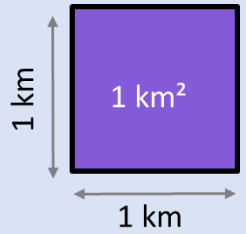
The area equal to a square that is one centimetre on each side.

Square metres



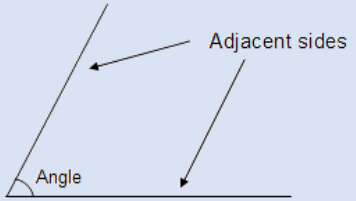
The area equal to a square that is one metre on each side.

Square kilometres



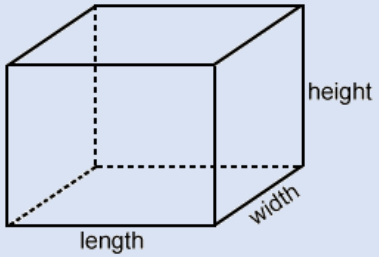
The area equal to a square that is one kilometre on each side.

Adjacent



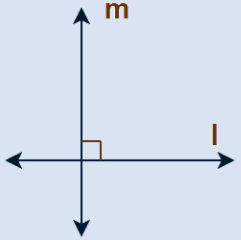
Two sides which meet at a vertex are adjacent.

Dimension



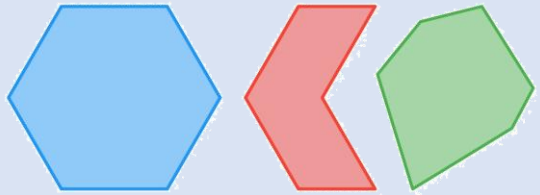
A measure of length in one direction.

Perpendicular



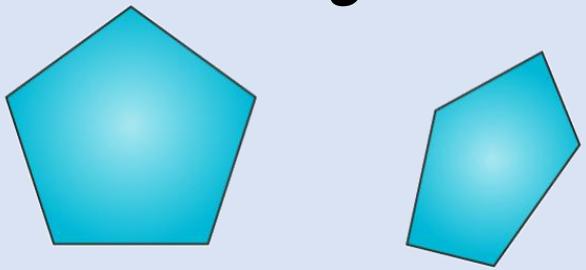
Two sides which meet or cross at a right angle.

Hexagon



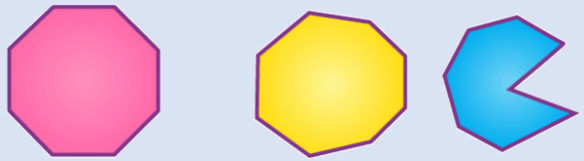
A six sided polygon.

Pentagon



A five sided polygon.

Octagon

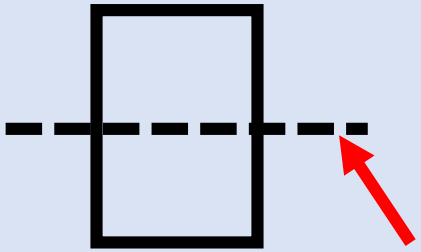


An eight sided polygon.

Horizontal

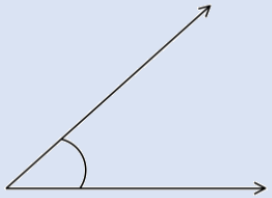
Vertical

Line of symmetry



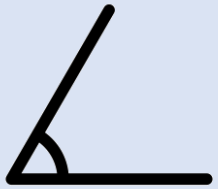
If you were to place a mirror along the line of symmetry the shape would remain the same.

Angle



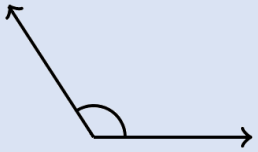
The space between two lines.

Acute Angle



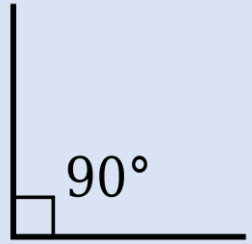
Any angle between 0 and 90°

Obtuse angle



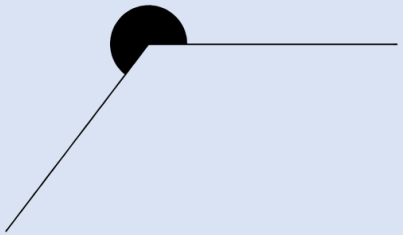
Any angle between 90° and 180°.

Right angle



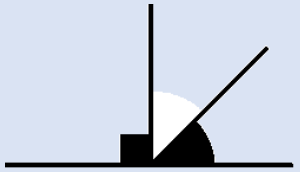
A 90° angle.

Reflex angle



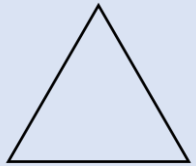
Any angle between 180° and 360°.

Angles on a line



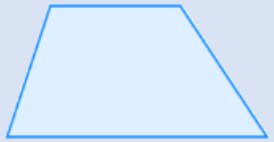
Angles add to 180° on a straight line

Angles in a triangle



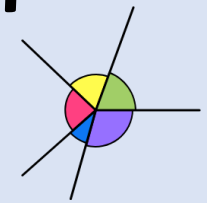
Angles add to 180° in a triangle

Angles in a quadrilateral



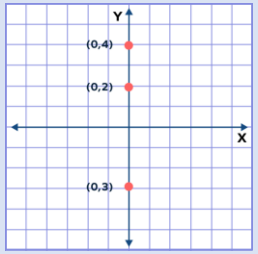
Angles add to 360° in a quadrilateral

Angles on a point



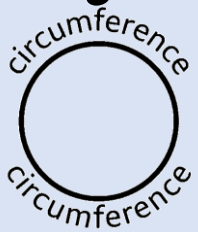
Angles add to 360° on a point

Coordinate



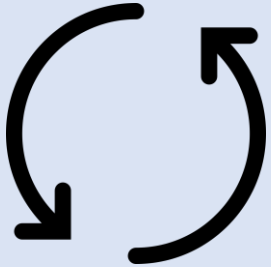
A coordinate (x, y) determines the position of a point.

Circumference



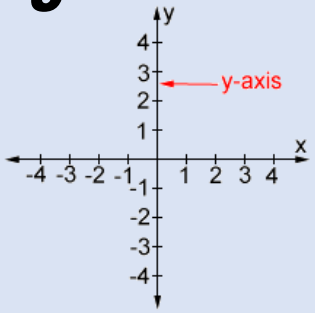
The distance around the outside of a circle.

Rotate



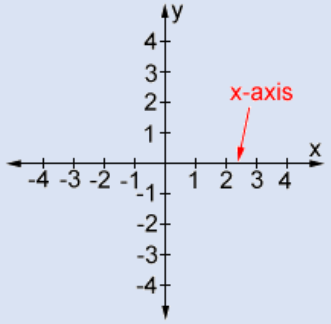
To move around a point.

y axis



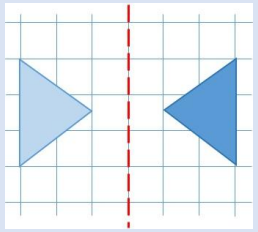
The vertical axis

x axis



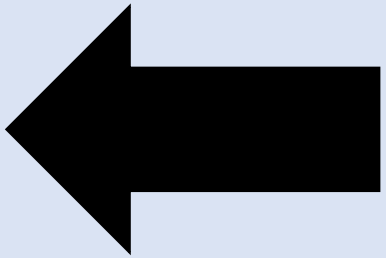
The horizontal axis

Reflection

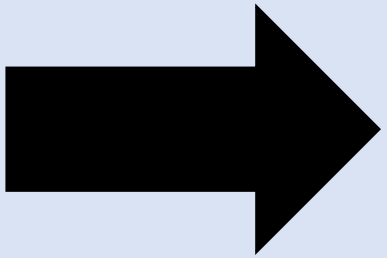


A mirror image of a shape.

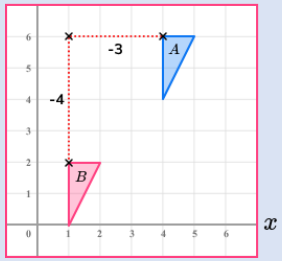
Left



Right

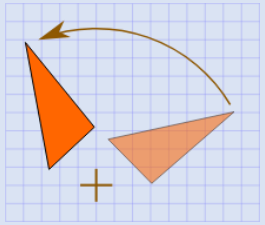


Translation



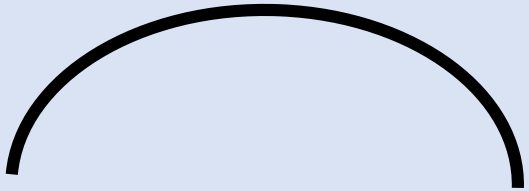
A translation moves a shape left, right, up, or down but does not turn.

Rotation



A rotation moves a shape around a point.

Curved



Straight