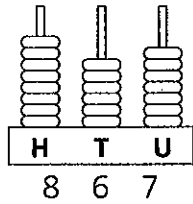


Dictionary

abacus

An instrument used for counting and calculating.



addition (symbol: +)

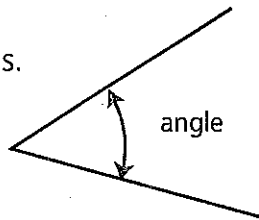
The act of adding two or more numbers together. Examples:

$$1 + 3 + 2 = 6$$

$$\begin{array}{r} 39 \\ + 24 \\ \hline 63 \end{array}$$

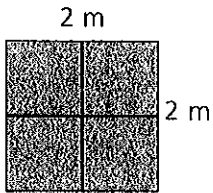
angle

The amount of turning between arms.



area

The size of a surface.



$$\text{Area} = 4 \text{ m}^2$$

ascending order

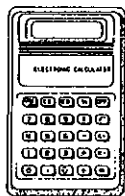
An arrangement in order from smallest to largest.

Example:

1, 3, 5, 7, 11, 15

calculator

A machine used to perform mathematical operations.

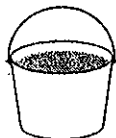


capacity

The amount that a container can hold.



Less than a litre

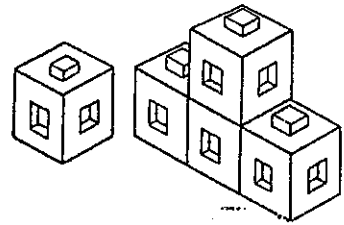


More than a litre.

centicube

Interlocking cubes with each edge measuring one centimetre.

Example:



centimetre (symbol: cm)

A unit of length equal to one hundredth of a metre.

$$100 \text{ cm} = 1 \text{ m}$$

counting number

Any number used in counting.

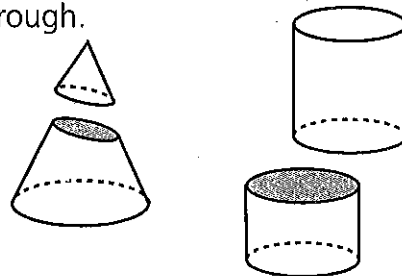
Example:

1, 2, 3, 4, 5, ...

Zero is not a counting number.

cross-section

A face that is exposed when a solid shape is cut through.



decimal point

A point or dot used to separate a decimal fraction from a whole number.

Example:

$$36.9$$

↑
decimal point

decomposition

A method of subtraction

Example:

$$\begin{array}{r} \text{Tens} \quad \text{Ones} \\ 4 \quad 16 \\ \cancel{5} \quad 6 \\ - 3 \quad 9 \\ \hline \end{array}$$

Regroup 5 tens by trading to give 4 tens and 16 ones.

descending order

Arranged in order from greatest value to least value.

\$5.96, \$4.75, \$2.30, \$1.65
(most) (least)

difference

The amount by which two numbers differ.

Example:

$$9 - 6 = 3$$

The difference between 9 and 6 is 3.

digit

A numeral. A symbol used to write a number.

Examples:

6, 47


6 is a one-digit number.

47 is a two-digit number.

division (symbol: \div)

Breaking up groups into equal parts.

Examples:

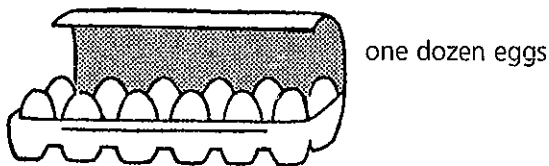
a) Sharing  2 each

b) Grouping  2 groups

dozen

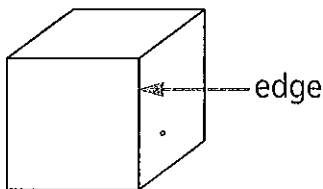
A collection or set of 12 things.

Example:



edge

The intersection of two surfaces.



equal sign (symbol: =)

The symbol that means "is equal to" or "equals".

Example:

$$3 + 6 = 9$$

3 plus 6 is equal to 9.

even number

Any number that is divisible by 2.

Examples;

16, 300, 4 394

expanded notation

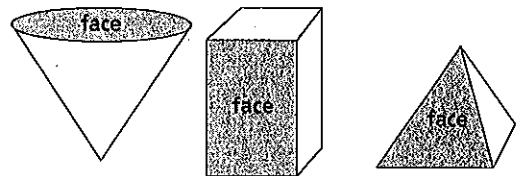
A way of writing numerals to show the place value of each digit.

Example:

$$137 = 100 + 30 + 7$$

face

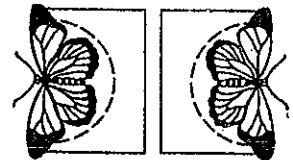
The flat surface of a solid shape.



flip


To turn over.


Example:

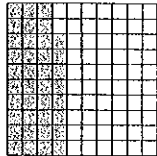


fraction

Any part of a whole or group.

 2 out of 6 shaded

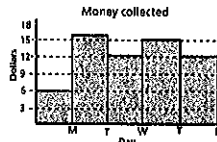
 $\frac{1}{4}$ is shaded

 $\frac{38}{100} = 0.38 = 38\%$

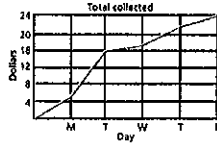
graph

A diagram or drawing used to record a collection of data.

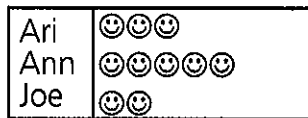
column graph



line graph



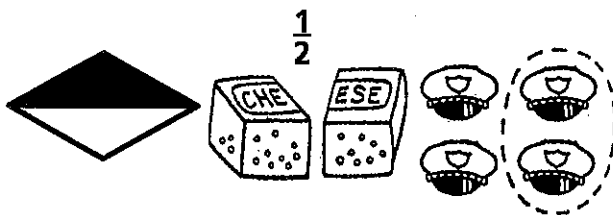
picture graph



half (plural: halves)

One part of two equal parts

Examples:



heft

To judge the weights of objects by lifting them in the hands.

Example:



kilogram (symbol: kg)

The basic S.I. unit of mass, equal to 1 000 grams.

$1 \text{ kg} = 1\,000 \text{ g}$

line

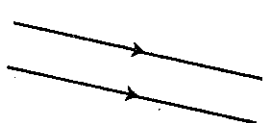
straight line



curved line



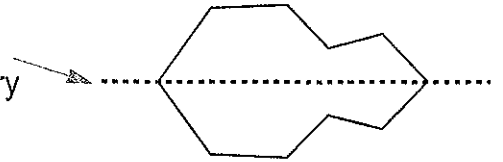
parallel lines



line symmetry

A line that divides something in half so that each half is a mirror image of the other.

line of symmetry



litre (symbol: L)

A unit of capacity (or volume) used for the measurement of liquids.

$1 \text{ L} = 1\,000 \text{ mL}$

MAB (multibased arithmetic blocks)

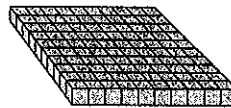
Blocks used to give a concrete representation of numbers.



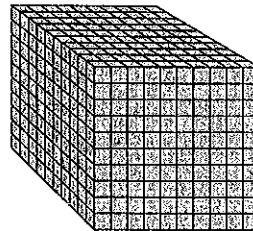
short – units or ones



long – 10 shorts joined



flat – 100 shorts joined



cube – 1000 shorts joined

These are Base 10 blocks.

mass

The amount of matter in an object. The word "weight" is commonly used to incorrectly mean mass.



Weight is the same as mass at sea level.

metre (symbol: m)

The basic S.I. unit of length, equal to 100 centimetres.

$1\text{ m} = 100\text{ cm}$

money

\$ = dollar

c = cent



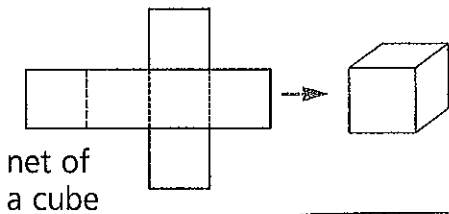
multiplication (symbol: \times)

An operation giving the total in a number of groups or rows.

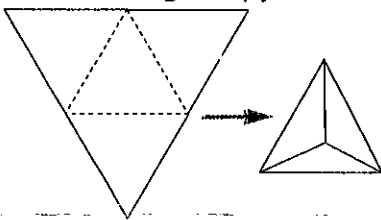
4×5 can mean four groups of 5
or four rows of 5.

net

A flat shape that can be folded to make a three-dimensional model.



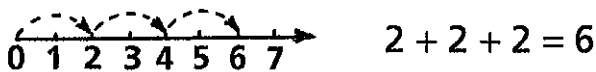
net of a cube



net of a triangular pyramid

number line

A line on which numbers are marked. Number lines can be used to show operations.

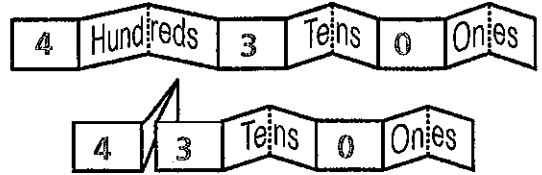


number sentence

A mathematical sentence written in numerals rather than words.

Example: $3 + 6 = 9$
 $2 \times 4 = 8$

numeral expander



operation

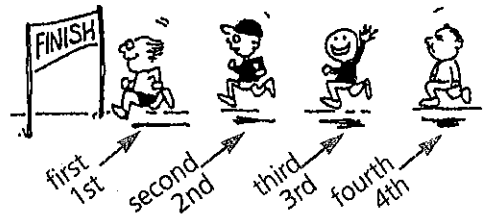
One of the four basic methods of solving problems in Arithmetic.

Examples:

- Addition $30 + 6 = 36$
- Subtraction $36 - 6 = 30$
- Multiplication $5 \times 6 = 30$
- Division $30 \div 5 = 6$

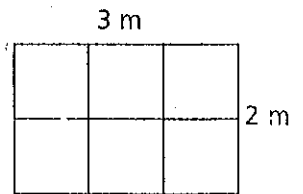
ordinal number

A number that shows the position or place of and object.



perimeter

The distance around the outside of a shape; the boundary.



$2\text{ m} + 3\text{ m} + 2\text{ m} + 3\text{ m} = 10\text{ m}$

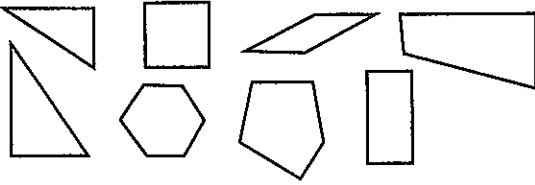
place value

The value of a digit depending upon its position in a numeral.

Hundreds	Tens	Ones
3	9	6

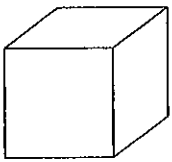
polygon

A plane shape with three or more straight sides such as a triangle, a quadrilateral, a pentagon, etc.

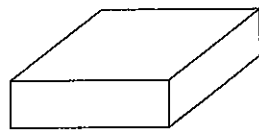


prism

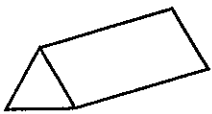
A solid shape with a uniform cross-section. Examples:



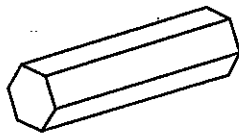
cube



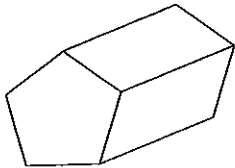
rectangular prism



triangular prism



hexagonal prism

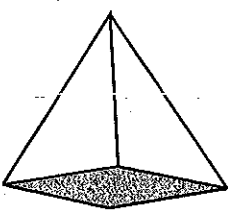


pentagonal prism

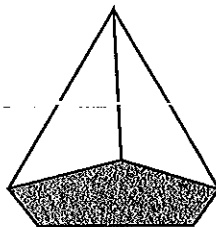
pyramid

A solid shape that has a polygon for a base and triangles for all other faces.

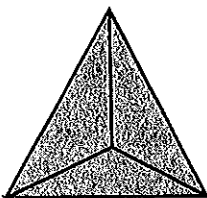
Examples:



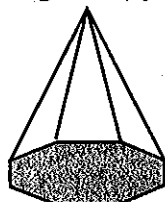
square pyramid



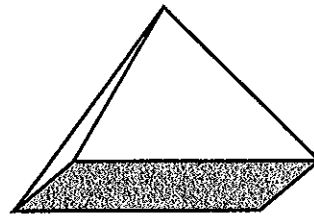
pentagonal pyramid



triangular pyramid



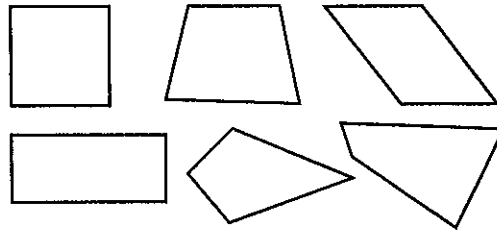
hexagonal pyramid



rectangular pyramid

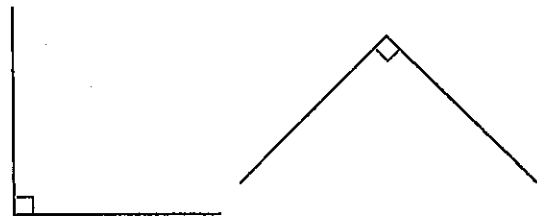
quadrilateral

A plane shape with four straight sides.



right-angle

A square angle (one that measures 90°).



Roman numerals

An ancient number system devised by the Romans.

The symbols used in Roman numerals are:

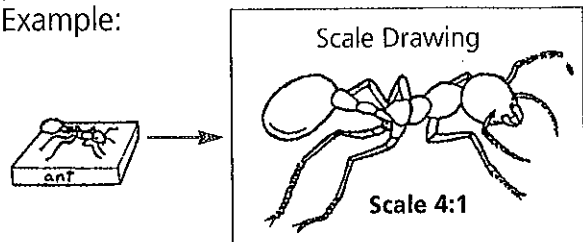
I	V	X	L	C	D	M
(1)	(5)	(10)	(50)	(100)	(500)	(1000)

Example: XXVIII = 28

scale

A drawing in which the actual size of the object has been reduced or increased proportionally.

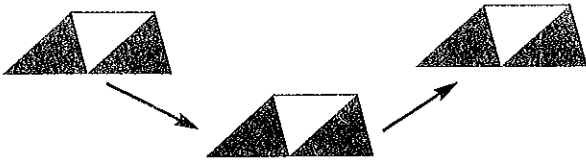
Example:



slide

To move a shape in any direction without changing the original orientation of the shape.

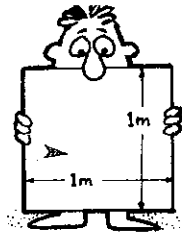
Example:



square metre (symbol: m²)

A unit for measuring area.

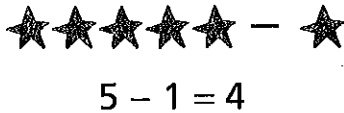
1 m²



subtraction (symbol: -)

The act of subtracting one number or quantity from another.

Example:



tally

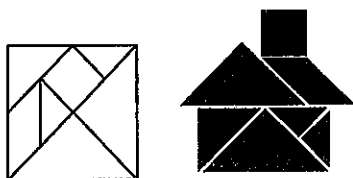
To keep count by making a mark to represent each item. To make counting easy, the marks are drawn in groups of five with the fifth mark crossing the four preceding strokes.



tangram

A traditional Chinese puzzle in which a square is cut into seven pieces that can be rearranged to make different pictures.

Examples:

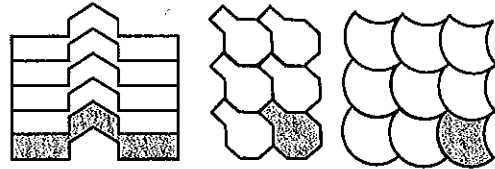


temperature

A measure of how hot or cold something is. Temperature is usually measured in degrees Celsius (°C).

tessellation

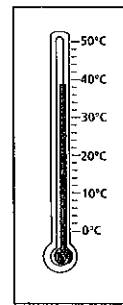
A pattern of identical shapes that fit together without gaps or overlaps.



These shapes tessellate.

thermometer

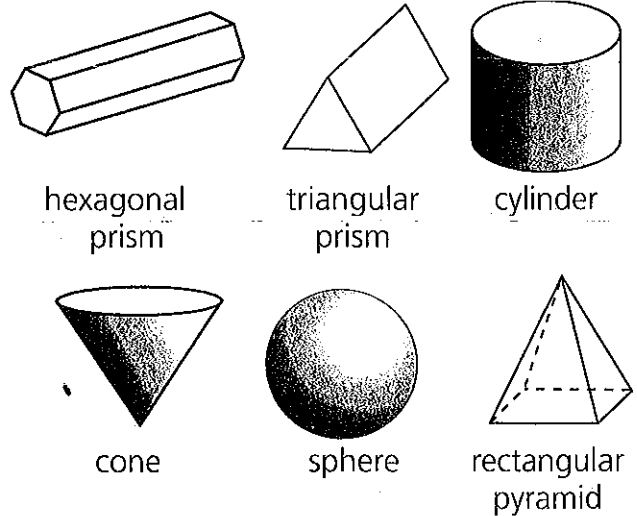
An instrument used for measuring temperature.



Not all thermometers have the same scale.

three-dimensional (3D) shapes

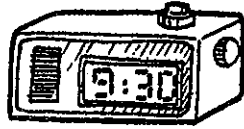
Solid objects are three-dimensional. They have length, width and height.



time



analog time

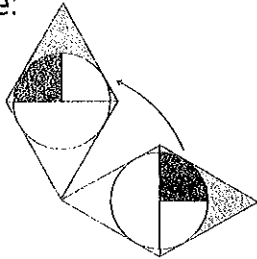


digital time

turn

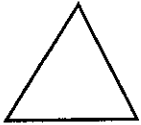
To rotate a shape about a given point.

Example:

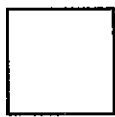


two-dimensional (2D) shapes

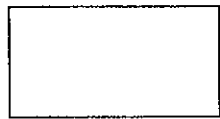
Plane shapes are two-dimensional. They have length and width.



triangle



square



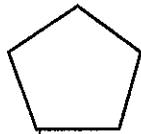
rectangle



rhombus



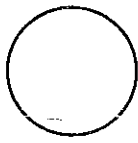
trapezium



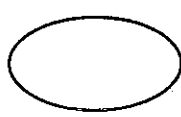
pentagon



hexagon



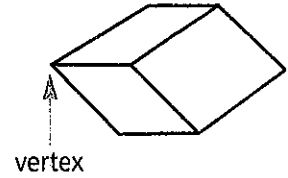
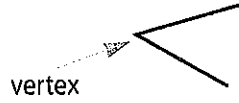
circle



oval

vertex (plural: vertices)

A point at which two or more lines meet to form a corner on a plane or solid shape.

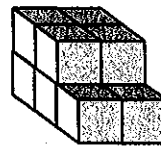


views of solids

Top view	Front view	Side view	Solid

volume

The amount of space occupied by a solid.



This model has a volume of 10 blocks.

zero

The numeral 0.

Zero also means nought, nothing, nil or none. The digit zero is used as a place holder in numerals.

Example:

6075

6 thousands, no hundreds, 7 tens and 5 ones