

# Contents

<b>Mathematical Terms .....</b>	<b>1–68</b>
<b>Additional Information .....</b>	<b>70–130</b>
Addition Table .....	70
Multiplication Table .....	71
Basic Properties of the Operations .....	72
Decimal System of Numeration .....	73
Roman Numeration System and Mayan Numeration System .....	74
Figurate Numbers .....	75–77
Factors .....	77
Factors and Rectangular Numbers .....	78–79
Prime and Composite Numbers to 200 .....	80
Rules for Divisibility .....	81
Rational Number Equivalents .....	82
The Real Number System .....	83
Exponents/Rules of Exponents .....	84–85
Mathematics of Finance .....	86–87
Data Representation .....	88–97
Angles .....	98
Polygons .....	99
Triangles .....	100–103
Quadrilaterals .....	104–105
Circles .....	106–108
Three-dimensional Shapes .....	109–112
Faces, Edges and Vertices of Polyhedra .....	112
Symmetry .....	113
Transformations .....	114–115
Cross-sections and Conic Sections .....	116–117
The Metric System and the International System (SI) .....	118–120
Time Units/Additional Units .....	121–123
Customary (English) System of Measurement .....	124
Metric/Customary (English) Conversion Table .....	125
Rules for Finding Area .....	126
Rules for Finding Surface Area .....	127
Rules for Finding the Volume of Prisms .....	128
Rules for Finding the Volume of Pyramids and Spheres .....	129
Common Math Symbols .....	130



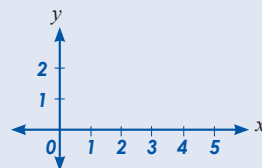
# List of Mathematical Terms

## Average

A single number used to describe what is typical of a set of data. The (arithmetic) mean, median and mode are examples of averages.

## Axis (axes)

A linear direction, usually vertical or horizontal.



A bar or column graph and the coordinate plane each have both vertical and horizontal axes.

## Axis of symmetry

See Line of symmetry.

## B

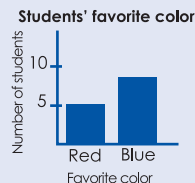
## Balance

1. Equipment using a pivoted beam to compare the masses of objects, or to weigh objects.
2. The amount of money in an account.



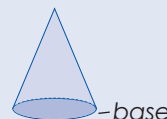
## Bar graph

A graph in which the lengths of the bars are used to represent and compare data.



## Base (of a cone)

The circular face.



## Base (of a place value number system)

In a place value numeration system, the grouping that is used. The decimal numeration system is a base 10 numeration system.

## Base (of a power)

The repeated factor in a power.

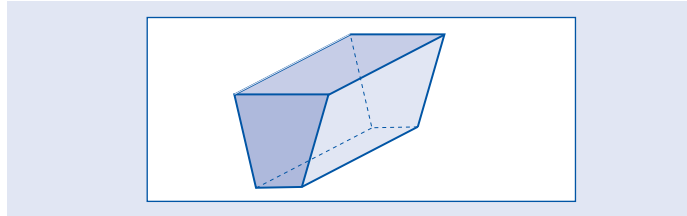
In the power  $4^3$ , 4 is the base. In the power  $(x + 2)^5$ ,  $x + 2$  is the base.



# Three-dimensional Shapes

## Polyhedra

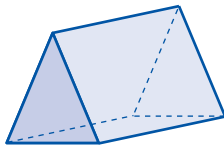
Polyhedra are three-dimensional (3-D) shapes formed by polygonal regions (faces). The single term is polyhedron.



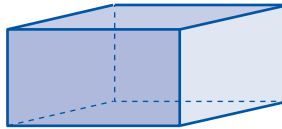
The polyhedron shown here is a hexahedron; i.e. it has six faces.

## Prisms

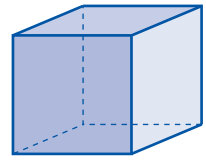
Three-dimensional shapes formed by two congruent polygonal regions in parallel planes (bases), connected by parallelogram regions.



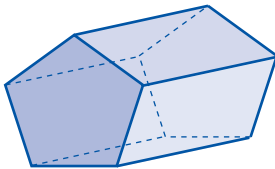
**Triangular Prism**



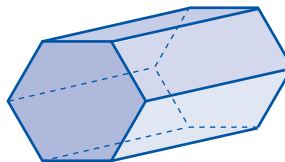
**Rectangular Prism**



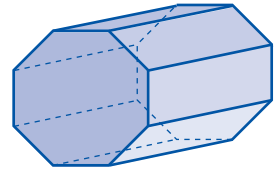
**Square Prism**



**Pentagonal Prism**

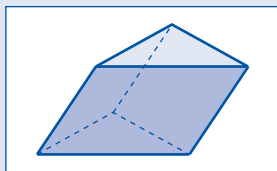


**Hexagonal Prism**



**Octagonal Prism**

Note that all the above are right prisms. The lateral faces are at right angles to the two congruent bases. Prisms that are not of this form are oblique prisms.



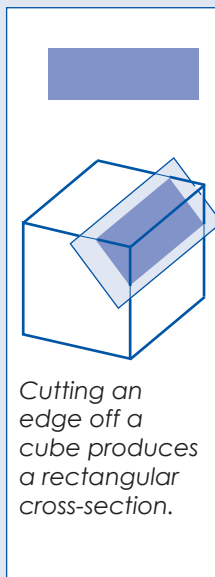
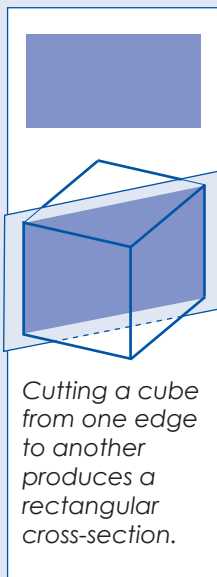
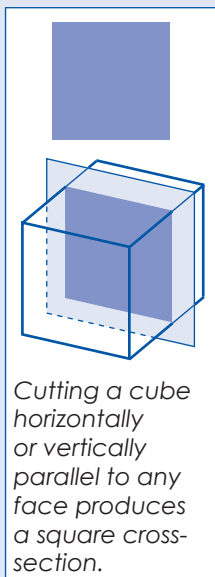
**Oblique  
Triangular  
Prism**



# Cross-Sections and Conic Sections

Cross-sections refer to the plane regions resulting from planar cuts through 3-D objects.

## Some Cross-Sections of Cubes



There are many other resulting cross sections of a cube, such as trapezoids and hexagons.

## Some Cross-Sections of Cylinders

