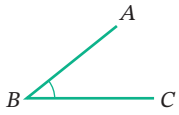
GLOSSARY AND INDEX

24-hour time Time of day written using 4 digits (instead of a.m. or p.m.) and the hours 0 to 23. For example, 18:20 is the 24-hour time for 6:20 p.m. (p. 453)

A

AAS The angle-angle-side test for congruent triangles. (p. 356)



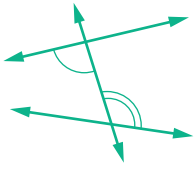
acute angle A 'sharp' angle between 0° and 90°, for example, the marked angle in the diagram. (p. 131)

acute-angled triangle A triangle with all 3 angles acute. (p. 140)

algebraic expression A number written in algebraic form using variables, for example, $2xy + 4y - 5$. (p. 85)

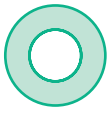
algebraic term See **terms of an expression**.

alternate angles A pair of angles between 2 lines crossed by a transversal, on opposite sides of the transversal; for example, the 2 angles marked in the diagram. (p. 135)



angle sum The total of the sizes of the angles in a shape. The angle sum of a triangle is 180°. (p. 152)

annulus A ring shape between 2 different-sized circles with the same centre. (p. 40)



arc Part of the circumference of a circle. (p. 189)

area The amount of surface enclosed by a shape, measured in square units. (p. 172)

ascending order Going up, increasing, from smallest to largest (1–2–3). The opposite of **descending order**. (p. 52)

at least Referring to the smallest number, for example, 'at least 2' means 2, 3, 4, ... , that is, '2 or more'. (p. 374)

average See **measure of location**. (p. 289)

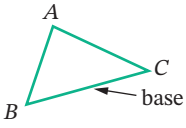
B

backtracking method A method of solving equations by 'undoing', or performing inverse (opposite) operations in reverse order. (p. 411)

balancing method A method of solving equations by performing inverse (opposite) operations on both sides. (p. 411)

base (in index notation) When a number is raised to a power, the number raised is the base. In the expression 3^5, the 3 is called the base. (p. 64)

base (of a shape) The bottom side of a flat shape such as a triangle. (p. 175)



best buy When comparing different brands or sizes of items during shopping, the best buy is the item with the lowest unit price and is the best value for money. (p. 459)

bias In statistics, something that causes a sample to not truly represent the population. (p. 321)

binomial expression An algebraic expression with 2 terms, for example, $x + 9$, $2y - 12$. (p. 118)

braces/brackets See **grouping symbols**.

C

capacity The amount of material (usually liquid) that a container can hold, measured in millilitres (mL), litres (L), kilolitres (kL) and megalitres (ML). (p. 219) See also **volume**.

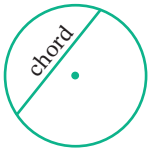
Cartesian plane Another name for **number plane**. (p. 500)

categorical data Non-numerical data that can be classified into categories, such as hair colour, favourite radio station or postcode. Data that is not numerical. (p. 287)

census A survey of the entire **population** of people or items, not just a survey of a **sample**. (p. 321)

certain Must happen; has a probability of 1 or 100%. (p. 374)

chord An interval joining 2 points on a circle. (p. 189)



circumference The perimeter of a circle, or the length of that perimeter. $C = \pi d$ or $C = 2\pi r$, where C is the circumference, π is pi, d is the diameter and r is the radius. (pp. 189, 194)

cluster A group of data values that are bunched or close together. (p. 306)

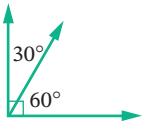
coefficient The number 'in front of' a variable in an equation; a multiplier. For example, in $y = 3x - 7$, the coefficient of x is 3. (p. 515)

co-interior angles A pair of angles between 2 lines crossed by a transversal, on the same side of the transversal (co-interior means 'together inside'), for example, the 2 angles marked in the diagram. (p. 135)

collinear points Points that lie in a straight line. (p. 504)

compasses Geometrical instrument for constructing circles and lines of equal length.

complementary angles 2 angles whose sum is 90°. The angles 30° and 60° are complementary. (p. 131)



complementary event All the outcomes that are *not* the event; the 'opposite' event. For example, the complementary event to rolling 1 on a die is rolling a number that is not 1. (p. 378)

composite shape A shape made up of 2 or more basic shapes. (p. 178)

congruent Identical, exactly the same. The symbol '≡' means 'is congruent to' or 'is identical to'. (p. 343)

congruent figures Identical figures, having the same shape and size. (p. 343)

congruence test One of 4 tests for proving that 2 triangles are congruent: SSS, SAS, AAS and RHS. (p. 356)

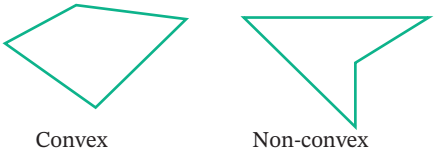
consecutive numbers Any series of integers that follow each other in order, for example, 8, 9 and 10. (p. 89)

constant term The term in an equation that is a number only and does not contain a variable. For example, in $y = 3x - 7$, the constant term is -7. (p. 515)

continuous data Numerical data that can be measured on a smooth scale without any gaps, that can take on a full range of values, such as the height of people. Continuous data is measured on a scale without 'gaps', unlike **discrete data**. (p. 287)

converse The 'reverse' of a rule, the rule written 'back-to-front' or 'turned around'. The converse of Pythagoras' theorem is that if the square of the longest side of a triangle is equal to the sum of the squares of the other 2 sides, then the triangle is right-angled. (p. 20)

convex quadrilateral A quadrilateral whose vertices all point outwards. All diagonals lie within the shape, and all angles are less than 180°. (p. 144)

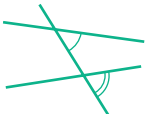


Convex Non-convex

Coordinated Universal Time See **UTC**.

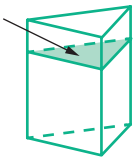
coordinates An ordered pair of numbers used to locate a point or position, for example, $A(2, 5)$ tells us that the point A is located 2 units to the right of and 5 units up from the origin. (p. 500)

corresponding angles A pair of angles in matching positions when 2 lines are crossed by a transversal. They are on the same side of the transversal and the lines, for example, the 2 angles marked on the diagram. (p. 135)



cost price The price it costs a retailer (shop) to buy (to resell). The cost price is usually less than the **selling price**. (p. 261)

cross-section A 'slice' of a solid cut across it rather than along it. (p. 211)



cube (of a number) The number raised to the power of 3. For example, 7 cubed $= 7^3 = 7 \times 7 \times 7 = 343$. (p. 64)

cube root (of a number) The value which, if cubed, gives the number. For example, $\sqrt[3]{8} = 2$ because $2^3 = 2 \times 2 \times 2 = 8$. (p. 64)

cubic metre A metric unit of volume, the volume of a 1 m cube. (p. 208)

cylinder A can-shaped solid with ends that are circles. (p. 216)

D

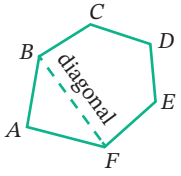
data Information, a collection of facts. (p. 281)

decimal places The places after the decimal point in a number. For example, 3.1416 has 4 decimal places.

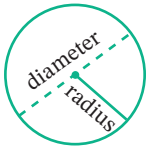
denominator The number below the line in a fraction. The denominator of $\frac{2}{3}$ is 3.

descending order Going down, decreasing, from largest to smallest (3–2–1). The opposite of **ascending order.** (p. 52)

diagonal An interval joining 2 non-adjacent vertices of a shape.



diameter An interval joining 2 points on the circumference and passing through the centre of a circle, or the length of that interval. The diameter is double the **radius**. (pp. 189, 194)



difference The result of a subtraction. The difference between 65 and 10 is 55. (p. 42)

discount The saving made between the original price of an item and the reduced price. (p. 246)

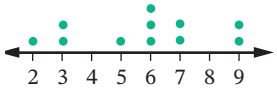
discrete data Numerical data that are counted or measured, only taking on distinct, separate values, such as the number of children in a family (0, 1, 2, ...). Discrete data has a scale with 'gaps' or jumps, unlike **continuous data**. (p. 287)

distributive law A law of arithmetic that says that you can multiply by a number by splitting it into the sum or difference of 2 other numbers. For example, $27 \times 12 = 27 \times (10 + 2) = 27 \times 10 + 27 \times 2$. More generally, $a \times (b + c) = a \times b + a \times c$ for any 3 numbers a, b and c. (p. 109)

divided bar graph A rectangular graph that is divided into proportionately-sized sections to represent parts of a whole. (p. 281)

divisor See **factor**. (p. 113)

dot plot A graph that uses dots above a number line to show the frequencies of data values. (p. 306)



E

equation A mathematical statement that 2 quantities are equal. For example, $8 + 2 = 10$ or $3b - 7 = 5$. (p. 411)

equilateral triangle A triangle with all 3 sides equal. (p. 140)

equivalent Having the same value. For example, 0.75 and $\frac{3}{4}$ are equivalent. (p. 439)

event In probability, a result involving one or more outcomes. For example, when rolling a die, the event 'rolling an even number' contains the 3 outcomes {2, 4, 6}. (p. 373)

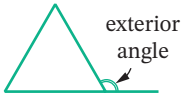
expected frequency The expected number of times an event will occur over repeated trials, calculated by multiplying the probability of the event by the number of trials. (p. 395)

experiment A situation involving chance that leads to outcomes, for example, rolling a die. (p. 374)

experimental probability An estimate of theoretical probability; the **relative frequency** of an event in repeated trials of an experiment, found using the formula $P(E) = \frac{\text{frequency of } E}{\text{total frequency}}$ (p. 395)

expression A mathematical description of one or more operations. For example, $2 \times 4 + 5$ and $3b - 7$ are mathematical expressions (but $3b - 7 = 5$ is an equation.) See also **algebraic expression**.

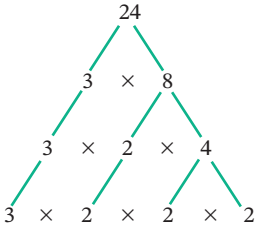
exterior angle An 'outside' angle of a shape created by extending one of the sides of the shape. (p. 152)



F

factor (of a number) A value that divides evenly into a given number. For example, the factors of 15 are 1, 3, 5 and 15. Also called **divisor**. (p. 113)

factor tree A diagram that lists the prime factors of a number. For example, the factor tree for 24 is shown. (p. 68)

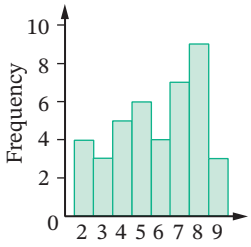


formula (plural: **formulas** or **formulae**) A rule written as an algebraic equation, using variables. The formula for the area of a triangle is $A = \frac{1}{2}bh$. (p. 92)

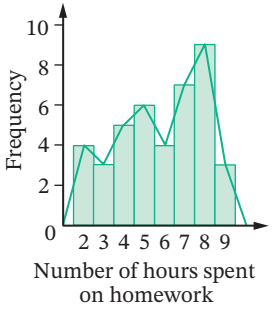
fraction A number written in the form $\frac{a}{b}$, where a and b are integers and $b \neq 0$. (p. 233)

frequency The number of times an event occurs in repeated trials of a probability experiment, or the number of times a value appears in a set of data. (p. 283)

frequency histogram A column graph that shows the frequencies of numerical data. There are no spaces between the columns, and the graph looks like a row of office buildings. (p. 313)



frequency polygon A line graph that shows the frequencies of numerical data. It can be made by joining the midpoints of the tops of the columns of a histogram. The graph looks like a mountain. (p. 313)



frequency (distribution) table A table listing the frequency of each value in a set of data, with columns for Score (x), Frequency (f) and sometimes Tally and fx. (p. 283)

G

goods and services tax (GST) A 10% tax added to the original price of an item or service. (p. 262)

greatest common divisor (GCD) See **highest common factor**.

Greenwich Mean Time (GMT) See **UTC**.

grouping symbols The collective name for parentheses ( ), (square) brackets [ ] and braces {}.

GST See **goods and services tax.**

H

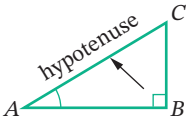
hectare A large metric unit of area, equivalent to 10 000 m^2 or to the area of a square 100 m × 100 m. (p. 172)

height How tall or high something is, the vertical distance between its top and its base. (p. 175)

highest common factor (HCF) Also called **greatest common divisor (GCD)**. The largest factor shared by 2 or more numbers or algebraic terms. For example, the HCF of 36 and 8 is 4 and the HCF of $6xy$ and $12y^2$ is $6y$. (p. 69)

horizontal Going across, sideways, flat. (p. 511)

hypotenuse The longest side of a right-angled triangle, opposite the right angle. (p. 6)



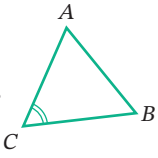
I

image A transformed shape after it has been translated, reflected or rotated. (p. 339)

impossible Cannot happen, no chance, has a probability of 0. (p. 374)

improper fraction A fraction whose numerator is greater than or equal to its denominator, such as $\frac{7}{4}$. (p. 233)

included angle The angle between 2 given sides of a shape. For example, the included angle for sides AC and CB in this triangle is $\angle C$. (p. 350)



index (plural: **indices**, pronounced 'in-da-sees') See **power**. (p. 64)

index notation A way of writing repeated multiplication using indices (powers), in the form a^n. Index notation for $2 \times 2 \times 2 \times 2$ is 2^4. (p. 64)

integer A number that is a positive or negative whole number or zero. The numbers {... , −3, −2, −1, 0, 1, 2, 3, ...} are integers. (p. 41)

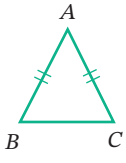
intersect To cross.

interval A section of a line with a definite length, such as AB below. (p. 363)

inverse operation The opposite or reverse operation, used when solving equation. For example, the inverse operation to adding is subtracting, the inverse operation to dividing is multiplying. (p. 411)

irrational number A number such as π or $\sqrt{2}$ that cannot be expressed as a fraction. In decimal form, its digits run endlessly without repeating. (p. 64)

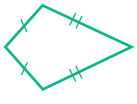
isosceles triangle A triangle with 2 equal sides. (p. 140)



K

kilo- A prefix meaning one thousand (1000), represented by the symbol k. For example, one kilogram is 1000 grams.

kite A quadrilateral with 2 pairs of equal adjacent sides. (p. 144)



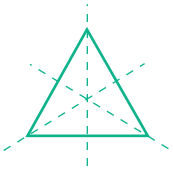
L

LHS The left-hand side (of an equation). (p. 419)

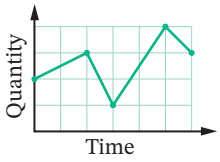
like terms Algebraic terms that have exactly the same variables. For example, $5xy$ and $2xy$ are like terms, $3xy$ and $4x^2$ are not like terms. (p. 99)

likely A high chance it will happen, probable. (p. 374)

line symmetry A plane shape has line symmetry if it can be folded so that one half fits exactly on top of the other half; that is, one half is the mirror image of the other. The line of fold is called the **axis of symmetry** (plural: **axes**). An equilateral triangle has 3 axes of symmetry. (p. 138) See also **rotational symmetry**.



line graph A graph made up of a line or several line intervals, often showing how a quantity is changing over time. (p. 473)



linear Involving a line. (p. 504)

linear equation A formula whose graph is a straight line, or an equation involving a variable that is not raised to a power, such as $2x + 9 = 17$. (p. 506)

long division A method for dividing by numbers with 2 or more digits, that is, a number greater than 10. (p. 37)

loss The money lost when selling an item at a lower price, when the selling price is less than the cost price. The opposite of **profit**. (p. 261)

lowest common multiple (LCM) The smallest multiple that is shared by 2 or more numbers. For example, the LCM of 4 and 10 is 20. (p. 69)

M

mean The average of a set of data, represented by $\bar{x}$, calculated by dividing the sum of the data values by the number of values. (p. 289)

measure of location or **measure of central tendency** An average, middle or typical value of a set of data. The 3 measures of location are the **mean**, **median** and **mode**. (p. 289)

median The middle value when the values of a data set are arranged in order. If the number of values is even, then the median is the average of the 2 middle values. (p. 292)

mega- A prefix meaning one million (1 000 000), represented by the symbol M. A megalitre is one million litres.

micro- A prefix meaning one-millionth, represented by the Greek letter μ. One microsecond is one-millionth of a second.

milli- A prefix meaning one-thousandth $\left(\frac{1}{1000}\right)$, represented by the symbol m. One millimetre is one-thousandth of a metre.

mixed numeral A number written as a whole number and a fraction, for example $5\frac{3}{4}$. (p. 233)

mode The most common or frequent value(s) in a set of data. (p. 289)

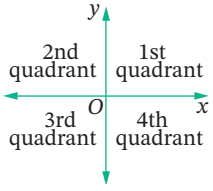
multiple (of a number) The product of the number and a whole number. For example, the multiples of 6 are 6, 12, 18, 24, ...

mutually exclusive events Events or categories that have no items in common. (p. 383)

N

negative number A number less than 0, written with a negative sign (−), for example, −3, −10 and −7.

number plane A coordinate grid system based on 2 number lines that cross at right angles: a horizontal line called the x-axis and a vertical line called the y-axis. Also called **Cartesian plane**. (p. 500)



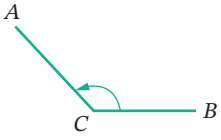
numerator The number above the line in a fraction. The numerator of $\frac{2}{3}$ is 2.

numerical data Data that can be measured or counted using values, such as a person's height or number of goals scored. Data that is not **categorical**. (p. 287)

O

obtuse angle A 'wide' angle greater than 90°, but less than 180°. (p. 131)

obtuse-angled triangle A triangle with one obtuse angle (between 90° and 180°). (p. 140)

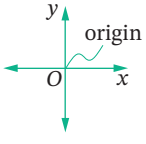


order of operations The order in which a mixed expression such as $(17 - [3 + 1]) \times 2$ is evaluated. Work from left to right, first performing any operations in grouping symbols, then multiplication and division, and finally addition and subtraction. (p. 50)

order of rotational symmetry See **rotational symmetry**.

ordered pair A pair of numbers (x, y) that can be used as coordinates to plot a point on the number plane. (p. 500)

origin The point $O(0, 0)$ at the centre of the number plane, where the x-axis and y-axis cross. (p. 500)



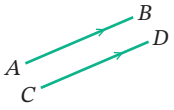
outcome In probability, the result of a situation or experiment. For example, when rolling a die, one possible outcome is rolling a 4. (p. 374)

outlier An extreme data value that is very different from the other values in a set. (p. 306)

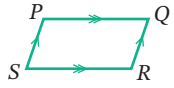
P

parallel lines Lines that point in the same direction and do not intersect.

$AB \parallel CD$ means 'AB is parallel to CD.' (p. 135)



parallelogram A quadrilateral in which the opposite sides are parallel. (p. 144)



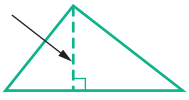
parentheses (Pronounced 'pa-ren-th-sees') See **grouping symbols**.

per annum (p. a.) Per year. (p. 265)

percentage A fraction with denominator 100 that is written in a special way. For example, 7% means $\frac{7}{100}$. (p. 240)

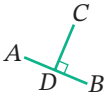
perimeter The distance around the outside of a shape. The sum of the lengths of its sides. (p. 169)

perpendicular height The height of a shape, measured at right angles to the base. (p. 175)



perpendicular lines Lines that intersect to form a right angle.

$AB \perp CD$ means AB is perpendicular to CD.



pi (π) A special number, approximately 3.1416, used in calculating circle measurements. Pi is a constant value found by dividing the circumference of any circle by the diameter. (p. 194)

polygon Any flat shape made up of straight sides. (p. 157)

population In statistics, all of the items being studied, the entire group. (p. 320)

positive number A number greater than 0, for example, 11, 6 and 4.

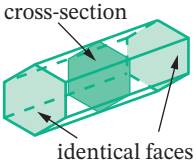
power (or index) The number of times a base is multiplied by itself. In 2^5, the power is 5. Also called the **exponent**. (p. 64)

power of 10 The numbers 10, 100, 1000 and so on, formed by multiplying 10 by itself repeatedly.

prime number A number that has only 2 factors, 1 and itself. For example, 2 and 7 are prime numbers, but 15 is not.

principal An amount of money invested or borrowed, on which interest is calculated. (p. 265)

prism A solid shape with identical cross-sections with straight sides, such as this hexagonal prism. (p. 211)



probability The chance of an event occurring, measured as a fraction, decimal or percentage between 0 and 1. (p. 373)

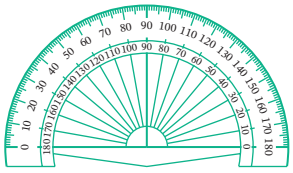
product The result of multiplication. The product of 7 and 3 is 21. (p. 45)

profit The amount made when selling an item at a higher price, when the selling price is more than the cost price. The opposite of **loss**. (p. 261)

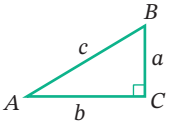
pronumeral Another name for **variable**. (p. 85)

proper fraction A fraction whose numerator is less than its denominator, such as $\frac{3}{8}$. (p. 233)

protractor A geometrical instrument that measures the size of an angle in degrees.



Pythagoras' theorem The formula $c^2 = a^2 + b^2$ for a right-angled triangle, where c is the length of the hypotenuse and a and b are the lengths of the other 2 shorter sides. (p. 6)

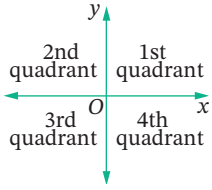


Pythagorean triad A set of 3 numbers that follow Pythagoras' theorem, such as 3, 4, 5. (p. 22)

Q

quadrant (of a circle) A sector that is a quarter of a circle, containing a right angle. (p. 189)

quadrant (of a number plane) A quarter of the number plane created by the x-axis and y-axis crossing at right angles. (p. 500)



quadratic equation An equation in which the highest power of the variable is 2, that is, a variable squared, for example, $3x^2 - 6 = 69$. (p. 425)

quadrilateral Any polygon with 4 sides. (p. 144)

quotient The result of adivision. If 36 is divided by 3, the quotient is 12. (p. 46)

R

radius (plural: **radii**) An interval joining the centre of a circle to the circumference, or the length of that interval. The radius is half of the **diameter**. (p. 189)

random In probability, describing a situation where every possible outcome has an equal chance, or is equally likely. (p. 374)

random sampling In statistics, selecting a sample in which every person or item in the population has an equal chance of being selected. A sample should be random to be truly representative of the population. (p. 321)

range In a set of data, the difference between the highest and lowest values. (p. 292)

rate A relationship between 2 quantities measured in different units. For example, a speed of 107 km/h compares distance travelled (in kilometres) with time (in hours). (p. 457)

ratio A relationship between quantities measured in the same units. For example, the ratio of 3 teachers to 40 students is 3: 40 (read '3 to 40'). (p. 439)

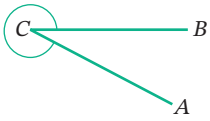
reciprocal The reciprocal of any number is found by first writing the number as a fraction and then swapping the numerator with the denominator. The reciprocal of 5 is $\frac{1}{5}$ and the reciprocal of $\frac{2}{3}$ is $\frac{3}{2}$. The product of any number and its reciprocal is 1. (p. 238)

rectangle A quadrilateral with 4 right angles. (p. 144)

recurring (or repeating) decimal A decimal with one or more digits that repeat endlessly. For example 0.1666 ... is abbreviated as $0.1\dot{6}$. (p. 61)

reflection The process of 'flipping' a shape across a line to give a mirror image that is back-to-front. (p. 339)

reflex angle A 'bent-back' angle greater than 180° but less than 360°. (p. 131)

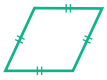


regular polygon A polygon that has all sides equal and all angles equal. For example, this regular pentagon has 5 equal sides and 5 equal angles. (p. 157)

relative frequency The frequency of an event in repeated trials of a chance experiment, written as a fraction of the total frequency, found using the formula $P(E) = \frac{\text{frequency of } E}{\text{total frequency}}$. (p. 395)

revolution An angle of 360°. (p. 131)

rhombus A quadrilateral with 4 equal sides. (p. 144)



RHS The right-hand side (of an equation). (p. 419)

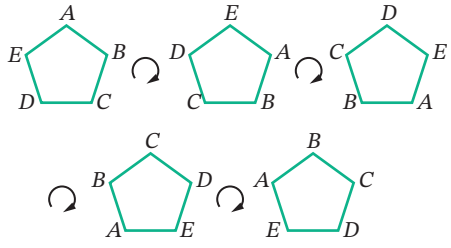
RHS The right angle-hypotenuse-side test for congruent triangles. (p. 356)

right angle A 90° angle, a 'square corner', a quarter-turn. (p. 131)

right-angled triangle A triangle with one 90° angle. (pp. 6, 140)

rotation The process of 'spinning' or turning a shape about or around a fixed point in a certain angle and direction (clockwise or anti-clockwise). (p. 339)

rotational symmetry A plane shape has rotational symmetry if it can be spun around its centre so that it fits onto itself again before making a complete revolution. The centre point is called the **centre of symmetry**. A regular pentagon has rotational symmetry, and because it can fit onto itself 5 times during one complete revolution, we say that it has *rotational symmetry of order* 5. (p. 138) See also **line symmetry**.



S

sample In statistics, a group of people or items selected from a population for study. (p. 320)

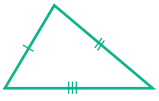
sample space In a probability situation, the set of all possible outcomes. (p. 373)

SAS The side-angle-side test for congruent triangles. (p. 356)

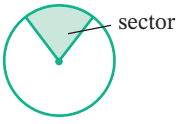
satisfy an equation When a variable (or variables) can be substituted into an equation to show that it is correct or true. For example, $x = 5$, $y = 8$ satisfies the equation $y = 3x - 7$. (p. 507)

scaled length The length on a scale drawing, map or plan, not the actual length. (p. 446)

scalene triangle A triangle with no equal sides. (p. 140)

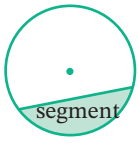


sector A region of a circle cut off by 2 radii, shaped like a slice of pizza. (p. 189)



sector graph Also called a pie chart, a circular graph that is divided into proportionately-sized sectors to represent parts of a whole. (p. 281)

segment A region of a circle cut off by a chord. (p. 189)



selling price The price at which an item is sold by the retailer (shop). The shop buys the item for the **cost price**. (p. 261)

semicircle Half a circle. (p. 189)

simple interest Interest that is calculated as a percentage of the original principal. (p. 265)

solution In algebra, the value that makes an equation true. (p. 411)

speed A rate that compares distance travelled with time taken. Usually measured in kilometres per hour (km/h) or metres per second (m/s). (p. 464)

$$\text{Average speed} = \frac{\text{distance travelled}}{\text{time taken}}$$

square A quadrilateral with 4 equal sides and 4 right angles. (p. 144)

square (of a number) The number multiplied by itself. For example, $7^2 = 7 \times 7 = 49$. (p. 64)

square root (of a number) The positive value which, if squared, gives the number. For example, $\sqrt{25} = 5$ because $5^2 = 5 \times 5 = 25$. (p. 5)

SSS The side-side-side test for congruent triangles. (p. 356)

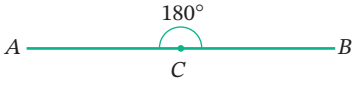
stationary Not moving, stopped. (p. 467)

stem-and-leaf plot A 'number graph' that lists all the data values in groups. Each value is split into a 'stem' and a 'leaf'. This stem-and-leaf plot shows 12 test marks, from 42 to 82. (p. 307)

Stem	Leaf
4	2 5
5	0 2 8
6	6 7
7	3 5 7 7
8	2

Key, 5|8 stands for 58

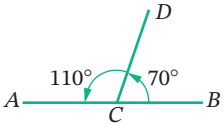
straight angle An angle of 180°. (p. 131)



sum The result of an addition. The sum of 5 and 7 is 12. (p. 42)

superimpose To place one figure on top of another congruent figure so that sides and angles match. (p. 343)

supplementary angles 2 angles whose sum is 180°. The angles 70° and 110° are supplementary. (p. 131)



surd A square root (or other root) whose exact value cannot be found, such as $\sqrt{10}$ or $\sqrt[3]{7}$. (p. 5)

survey A study involving collecting information, facts and opinions. (p. 326)

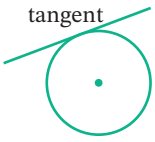
symmetry See **line symmetry** and **rotational symmetry**.

T

table of values A table of ordered pairs of numbers, usually following a formula and which can be graphed on a number plane. The table of values below is for the formula and linear equation $y = 2x - 3$. (p. 490)

x	−1	0	1	2
y	−5	−3	−1	1

tangent A line that touches a circle at one point. (A tangent cannot be inside a circle.) (p. 189)



term (of a pattern) A number or diagram in a pattern. (p. 439)

term (of an expression) A part of an algebraic expression. For example, $b^2 + 6b - 9$ has 3 terms: b^2, $6b$ and -9. (p. 99)

term (of a ratio) A number in a ratio, for example, in 14 : 9, the terms are 14 and 9. (p. 439)

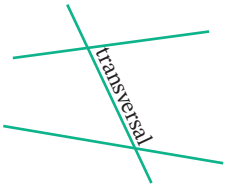
terminating decimal A decimal whose digits do not repeat endlessly, for example, 0.125. (p. 61)

time zone A region of the world where all places experience the same time of day, for example, 10 a.m. (p. 480)

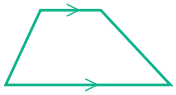
transformation In geometry, the process of moving or changing a shape. (p. 339) See also **reflection**, **rotation** and **translation**.

translation The process of 'sliding' a shape a certain distance and direction. (p. 339)

transversal A straight line that intersects 2 or more lines at different points. (p. 135)



trapezium A quadrilateral with one pair of opposite sides parallel. (p. 144)



travel graph A line graph that describes a journey and shows the distance travelled over time. (p. 467)

trial One go or run of a repeated probability experiment, for example, one roll of a die. (p. 374)

two-way table A table that shows the number of items belonging to overlapping categories. (p. 387)

	Can swim	Cannot swim
Boys	13	2
Girls	9	3

U

unit price The cost of one item or unit, found by dividing the cost of the item by the number of items or units. (p. 459)

unitary method A method for finding a quantity by finding the size of one part or 1% first. (p. 259)

unknown Another name for **variable** because its value is usually not known, especially in an equation where the value can be found.

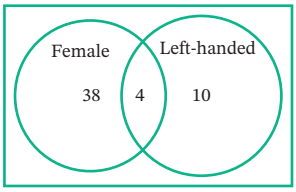
unlikely A low chance it will happen, improbable, probably won't happen. (p. 374)

UTC (Coordinated Universal Time) The time zone from which all time around the world is measured. Also called Greenwich Mean Time (GMT), it is the time measured at the Greenwich Observatory in London, England. (p. 480)

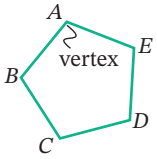
V

variable A symbol, usually a letter of the alphabet, that stands for a number. Also called a **pronumeral** or **unknown**. (p. 85)

Venn diagram A diagram of circles (usually overlapping) for grouping items into categories. (p. 382)



vertex (plural: **vertices**) A corner of a shape or angle. (p. 144)



vertical Going up and down, at a right angle to the **horizontal**. (p. 511)

vertically opposite angles A pair of opposite and equal angles formed when 2 lines cross. (p. 131)

volume The amount of space taken up by a solid object, measured in cubic units. (p. 208)

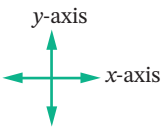
X

***x*-axis** The horizontal axis of a number plane (running across, see diagram below). (p. 500)

Y

***y*-axis** The vertical axis of a number plane (running up and down). (p. 500)

***y*-intercept** The y-value at which a line cuts the y-axis. (p. 516)



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