GLOSSARY AND INDEX

12-hour time: Time of day written in the usual way using a.m. or p.m. and the hours 1 to 12, for example, 9:27 p.m. *See also* **24-hour time**. (p. 477)

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, 1745 is the 24-hour time for 5:45 p.m. *See also* **12-hour time**. (p. 477)

absolute error: The maximum possible error for a measurement, equal to $\pm\frac{1}{2}$ of the smallest unit marked on the measurement scale. (p. 186). *See also* **limits of accuracy**.

allowable tax deduction: A part of a person's yearly income that is not taxed, such as work-related expenses or donations to charities. All deductions are subtracted from yearly income to determine **taxable income**. (p. 113)

allowance, worker's: Money paid to a worker for expenses incurred as part of his or her job (for example, for travel, for special clothing, or for working in isolated or dangerous areas). (p. 99)

annual leave loading: Extra payment to a worker based on a percentage (usually 17.5%) of 4 weeks annual leave. (p. 99)

arc: Part of the circumference of a circle. (p. 199)

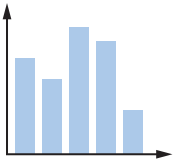
at least: A number equal to or greater than the given value, for example, 'at least 2' means 2 or more. (p. 145)

Australian Central Standard Time (ACST): Standard time zone (UTC+9.5) for central Australia: the Northern Territory and South Australia. (p. 485)

Australian Eastern Standard Time (AEST): Standard time zone (UTC+10) for eastern Australia: NSW, Queensland, Victoria, ACT and Tasmania. (p. 486)

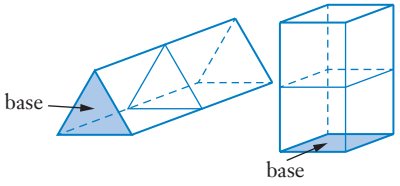
Australian Western Standard Time (AWST): Standard time zone (UTC+8) for Western Australia. (p. 487)

bar chart (or **column graph**): A graph consisting of vertical bars of equal width. (p. 5)



base (in index notation): A number being raised to a power. For example, in 2^5, the base is 2. (p. 61)

base (of a prism): One of the parallel end faces of a prism. (p. 217)



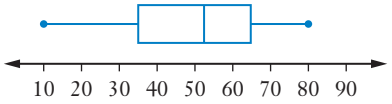
bias: In statistics, an unwanted influence that stops a sample from being representative of a population. (p. 21)

biased sample: A sample that is not truly representative of the population and affects the quality or reliability of a statistical study. (p. 21)

blood alcohol content (BAC): The concentration of alcohol in a person's blood, measured in g/100 mL. (p. 503)

bonus: Extra pay for achieving a high quality or volume of work, such as meeting an important quota, goal or deadline. (p. 99)

box plot: A diagram that displays the quartiles of a set of data as a box and the extremes as whiskers. (p. 439)



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braking distance: The distance travelled between when a driver applies the brakes and when the vehicle stops completely. (p. 524). *See also* **reaction distance** and **stopping distance**.

budget: A plan for managing money. (p. 275)

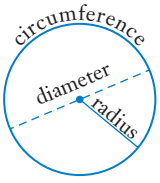
calorie: An older, non-metric unit of energy, equal to 4.184 kilojoules (kJ). (p. 268)

capacity: Maximum volume of liquid that can be held by a container, usually measured in millilitres (mL), litres (L) or kilolitres (kL). (pp. 216, 250)

categorical data: Information or data represented as a category rather than as a number (for example, the makes of cars, or the colour of eyes). Differs from **numerical data**. (p. 15)

census: Collection of information about every member of a population. (p. 18)

circumference: The perimeter of a circle. $C = \pi d$ or $C = 2\pi r$, where C is the circumference, π is pi (3.141 59…), d is the **diameter** and r is the **radius**. (p. 197)

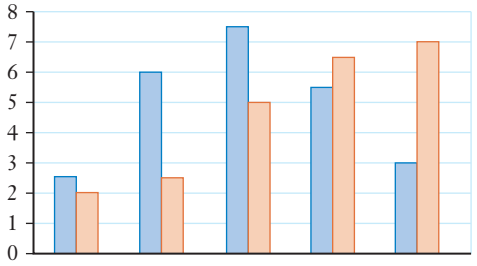


class centre: The centre of a class interval. For example, the class centre of the class interval 10–19 is 14.5. (p. 36)

class interval: In statistics, when there are many data scores, they may be grouped into class intervals. For example, ages of people may be grouped into class intervals of 1–10, 11–20, 21–30, and so on. (pp. 36)

cluster: A group of data scores that are bunched or close together. (p. 45, 453)

clustered bar chart: A bar chart that compares the data of two or more categories. (p. 8)



commission: The earnings of a sales person or agent; usually a percentage of the value of items sold. (p. 95)

complementary event: All the outcomes that are not the event. For example, the complementary event to rolling a 1 on a die is rolling a number that is not 1. (p. 151)

compounded: The addition of interest to the principal sum of a loan or deposit, or in other words, interest on interest. (p. 335)

compound interest: Interest paid on the principal invested as well as on any accumulated interest. Differs from **simple interest**. (p. 335)

compounding period: How often interest is calculated (for example, monthly, quarterly or yearly). (p. 336)

comprehensive insurance: Motor insurance that covers all damage to vehicles and property, including your own, in an accident in which you are at fault. (p. 357). *See also* **CTP insurance** or **Third Party Property insurance**.

Compulsory Third Party (CTP) insurance: Motor insurance that covers personal injury or death to another person ('third party') in an accident in which you are at fault. Also called '**green slip**' because of the insurance certificate is green. (p. 357). *See also* **comprehensive insurance** or **Third Party Property insurance**.

constant: A value that does not change. (p. 525). *See also* **variable**.

constant of variation (or **constant of proportionality**)**:** The constant in a variation equation. For example, if y varies as x, the equation is $y = kx$ and the constant of variation is k. (p. 308)

continuous data: Numerical (quantitative) data that can be measured on a smooth scale of values (without 'gaps'), such as the heights of people. (p. 16)

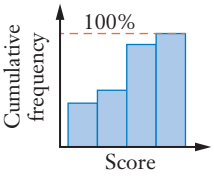
conversion graph: A graph that is used to convert between different units, such as between metric and imperial units of measurement, or between currencies in foreign currency exchange. (p. 313)

Coordinated Universal Time (UTC): *See* **UTC**. (p. 485)

coordinates: A pair of points (e.g. in x and y planes) that describe the location of a point on a number plane, map or involving **latitude** and **longitude**. (p. 468)

cumulative frequency: A running total of frequencies. (p. 434)

cumulative frequency histogram: A histogram in which the height of each column represents the cumulative frequency at each score. (p. 434)



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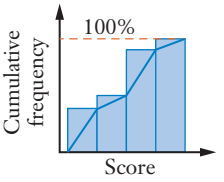
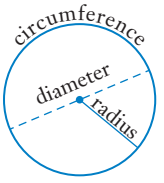
cumulative frequency polygon: A line graph formed by joining the ends of the tops of the columns of the cumulative frequency histogram. Also called an **ogive**. (p. 434)



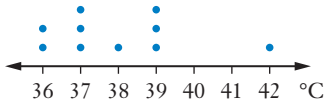
data: Observations or facts which, when collected, organised and evaluated, become information. (p. 15)
data allowance: *See* **included data**.
data set: Collection or group of data scores. (p. 50)
daylight saving time: Scheme where clocks are turned forward an hour to take advantage of increased hours of daylight during summer. (p. 490)
deciles: Values that divide a data set into 10 equal parts when the scores are arranged in order. (p. 418). *See also* **percentiles** and **quartiles**.
deduction (tax): *See* **allowable tax deduction**. (p. 113).
deductions (from pay): Amounts taken out of a person's gross pay (for example, union fees, superannuation, and income tax). (p. 108)
denominator: The number on the bottom of a fraction. For example, in $\frac{3}{5}$ the denominator is 5. (p. 63)
dependent variable: The variable in a function that depends on another variable for its value. For example, if $y = 3x + 5$, y is the dependent variable because its value depends on the value of x. Differs from an **independent variable**. (p. 300)
depreciation: Loss in value of an item or asset over time. (p. 343)
diameter: The length of the interval passing through the centre of a circle and joining two points on the **circumference** of the circle. The diameter is double the **radius**. (p. 197)



direct linear variation (or **direct proportion**)**:** The relationship between two variables (say x and y) is represented by an equation of the form $y = kx$, where k is the constant of variation. (p. 308)
discrete data: Quantitative (numerical) data that can be counted and whose values are separate and distinct, such as the numbers of pets owned, or the numbers of people in families. (p. 16)
discretionary spending: Money spent on items other than necessities. (p. 275)
distribution (or **frequency distribution**)**:** The way the scores of a data set are arranged, especially when graphed. (p. 452). *See also* **shape of a distribution**.

divided bar graph: A graph representing the parts of a whole by a rectangle divided into proportionately sized sections. Displays the same kind of data as a **sector graph**. (p. 5)

dosage: A prescribed amount of medicine to be taken. (p. 69)
dot plot: A graph that uses dots to show frequencies of data scores (for example, the temperatures, in °C, of 10 hospital patients). (p. 45)



Different from a **stem-and-leaf plot**. (p. 45)
double time: Wages paid at twice the normal rate (for example, for working on a Sunday or a public holiday). (p. 91)

energy rating label (ERL): A label on an electrical appliance showing the star rating of how energy-efficient it is (the more stars, the better), including the estimated number of kilowatt hours used per year (the lower, the better). (p. 262)
equally likely: Having an equal chance of occurring. (p. 138)
equation: A mathematical statement that two quantities are equal. An equation contains an equals sign (for example, $4x - 5 = 11$). (p. 74)
Equator: The 0° parallel of latitude, the great circle running around the middle of the Earth. The latitude of any point on Earth's surface is measured north or south of the Equator. (p. 470)
event: In probability, a result involving one or more outcomes. For example, when rolling a die, the event 'rolling an even number' contains the three outcomes {2, 4, 6}. (p. 138)
excess: Amount the person taking out the insurance agrees to pay upfront in the event of an accident before the company pays the rest. (p. 358)
expense: The cost of spending. (pp. 99, 275)
experimental probability: An estimate of the theoretical or calculated probability; the relative frequency of an event in repeated trials of an experiment. (p. 155)
extremes (upper and lower): The highest and lowest scores in a set of data. (p. 439)

fatality: An accident resulting in death, or a person who dies in an accident. (p. 514)

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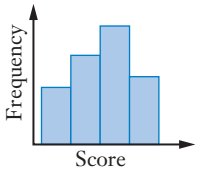
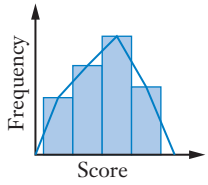
field diagram: A diagram produced from a land survey. (p. 210)
final amount: The value of an investment at the end of the investment term. (p. 336)
five-number summary: Lower extreme, lower quartile, median, upper quartile and upper extreme of a data set. These five numbers are used to draw a **box plot**. (p. 439)
fixed spending: Money spent on necessities such as food, clothes, fuel and household bills. (p. 275)
flat rate interest: Simple interest is charged on the principal borrowed for the term of the loan. (p. 328) *See also* **reducing balance loan**.
formula: A rule written as an algebraic equation, using variables. For example, the formula for the area of a triangle is $A = \frac{1}{2}bh$. (p. 68)
fortnightly: Every two weeks. (p. 92)
frequency: The number of times a score or group of scores occurs in a data set. (p. 37)
frequency distribution: *See* **distribution**.
frequency histogram: A histogram in which the height of each column represents the frequency of a single score or group of scores. (p. 36)



frequency polygon: A line graph formed by joining the midpoints of the tops of the columns of a frequency histogram. (p. 36)



fuel consumption: The rate at which fuel is used by a vehicle, usually measured in L/100 km. (p. 377)
function: The relationship between two variables (for example, $y = 3x - 5$). (p. 291)
future value: The value of an asset or money at a specific date. (p. 336)

giga-: (symbol G) A prefix meaning 'one billion'. (p. 185)
gigalitre: (GL) 1000 ML or 1 000 000 000 L. (p. 178)
gigawatt: (GW) 1000 MW or 1 000 000 000 W. (p. 185)
government allowance: Money paid by the government to support individuals for specific purposes (for example, to support the aged, unemployed, disabled, students and parents). (p. 102)
goods and services tax (GST): The tax a consumer pays on any purchased item or service (for example buying a car, or hiring a painter). (p. 119)
gradient: (symbol m) Slope of a line.
$\text{gradient} = \frac{\text{rise}}{\text{run}} = \frac{\text{change in } y}{\text{change in } x}$. (p. 291)
great circle: A slice through the centre of a sphere; its radius is the same as that of the sphere. (p. 470)
green slip: *See* Compulsory Third Party (CTP) **insurance**.
Greenwich Mean Time (GMT): *See* **UTC**.
Greenwich meridian: *See* **prime meridian**.
gross income: Earnings before deductions have been made. (p. 113)
gross pay (or **gross wage):** A person's pay before tax is deducted. Different from **net pay**. (p. 108)

halogen light: Light globe used in downlights. (p. 262)
hectare: A land measure equal to the area of a square 100 m by 100 m. 1 ha = 10 000 m^2. (p. 202)
hemisphere: Half a sphere, or half of the Earth, for example, the southern hemisphere. (p. 228)
histogram: *See* **frequency histogram**.

incandescent light globe: An electric light with a wire filament heated to such a high temperature that it glows with visible light (incandescence). (p. 262)
income: Money that is earned or gained (usually regularly). (p. 95, 275)
income tax: A tax on a person's income, paid to the government. (p. 113)
independent variable: A variable in a function whose values do not depend on any other variable. For example, if $A = \pi r^2$, r is the independent variable. This differs from the **dependent variable**. (p. 300)
inflation: A general increase in prices for goods and services. (p. 338)
insurance: A scheme in which you pay an insurance company regularly in return for being paid a larger amount if an accident occurs. (p. 172)
interest: Money earned on an investment, or money paid to a financial institution for borrowing. (p. 328)
International Date Line (IDL): The imaginary line that runs through the Pacific Ocean and is approximately the 180° meridian of longitude. A day is either gained or lost when this line is crossed. (p. 487)
interquartile range (IQR): The difference between the upper quartile and lower quartile of a data set ($Q_3 - Q_1$). It is a measure of the spread of the data. (p. 426)

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joule: (J) A unit of energy. (p. 268)

kilo-: (symbol k) A prefix meaning 'one thousand'. For example, a kilolitre is 1000 litres. (p. 182)
kilojoule: (kJ) A unit of energy equal to 1000 joules. (p. 185)
kilowatt: (kW) A unit of power equal to 1000 watts. (p. 254)
kilowatt-hour: (kWh) A unit of electrical energy equivalent to that used by one kilowatt of power in one hour. (p. 254)

land survey: *See* **offset survey**.
latitude: The angular distance north or south of the Equator of a point on Earth's surface; the size of the angle made between the point and the Equator at Earth's centre. (p. 469)
LHS: Left-hand side (of an equation). (p. 75)
likely: Probably will happen; having a probability above 0.5. (p. 138)
like terms: Terms that have exactly the same variable part, even though the numeral part may differ. (p. 61)
limits of accuracy: The limits of a measured value, for example, the limits of accuracy of a measured height of 171 cm are 170.5 cm to 171.5, meaning that the actual height lies within this range. The limits are found by adding to and subtracting from the measured value $\frac{1}{2}$ of the smallest unit marked on the measurement scale. (p. 186). *See also* **absolute error**.
linear: A word used to describe something to do with a line. (p. 291)
linear function: A function of the form $y = mx + c$, whose graph is a straight line. (p. 291)
linear modelling: Using a linear function to approximate a real-life situation. (p. 300)
longitude: The angular distance east or west of the prime meridian of a point on Earth's surface; the size of the angle made between the point and the prime meridian at Earth's centre. (p. 469)

mean: The average of a set of scores.

$$\text{mean (or } \bar{x}) = \frac{\text{sum of scores}}{\text{number of scores}} = \frac{\Sigma x}{n} = \frac{\Sigma fx}{\Sigma f}. \text{ (p. 402)}$$

measure of central tendency (or **measure of location):** A statistical value, such as the mean, median or mode, which describes the centre or average of a set of data. (pp. 402, 410)
measure of spread: A statistical value, such as the range, interquartile range or standard deviation, which describes the spread of a set of data. (p. 426)
median: The middle score of a data set when scores are arranged in ascending order. If there are two middle scores, the median is the average of the two. (p. 402)
median class: The class interval that contains the median score. (p. 409)
Medicare levy: A tax to cover the costs of the public health system, calculated as a percentage (usually 2%) of a person's income. (p. 114)
mega-: (symbol M) A prefix meaning 'one million'. For example, a megatonne is 1 000 000 tonnes. (p. 182)
megajoule: (MJ) 1000 kJ or 1 000 000 J. (p. 268)
megalitre: (ML) 1000 kL or 1 000 000 L. (p. 181)
megatonne: (Mt) 1 000 000 tonnes. (p. 181)
megawatt: (MW) 1000 kW or 1 000 000 W. (p. 260)
meridian of longitude: Great semicircle running down Earth's surface from the North pole to the South pole, measured east or west of the prime meridian (0° longitude). (p. 470)
micro-: (symbol μ) A prefix meaning 'one millionth'. For example, a micrometre is one-millionth of a metre. (p. 182)
microgram: (μg) One-millionth of a gram. 1 g = 1 000 000 μg. (p. 185)
middle quartile: The median, and separates the two middle quarters. (p. 417)
milligram: (mg) One-thousandth of a gram. 1 g = 1000 mg. (p. 181)
milliwatt: (mW) One thousandth of a watt. (p. 260)
modal class: The class interval with the highest frequency. (p. 409)
mode: The most common or frequent score(s) in a set of data. (p. 402)
modelling: Using mathematics to describe a real-life pattern or relationship. (p. 300)
more than: A number greater than the given value. For example, 'more than 2' means any number above 2 (not including 2). (p. 6)
multi-stage event: An event that involves two or more outcomes occurring together. For example, a two-stage event that involves tossing a coin and rolling a die together could be tossing tails and rolling an odd number. (p. 144)

net pay (or **net wage**)**:** A person's pay after tax has been deducted. Differs from **gross pay**. (p. 108)
nominal data: Categorical data that cannot be ordered, for example, colour of eyes. (p. 16)

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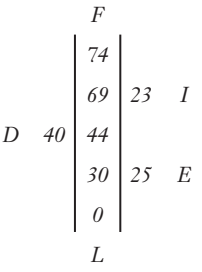
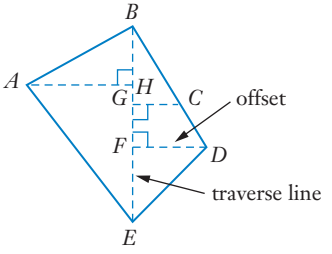
notebook entry: A diagram of measurements drawn by a surveyor in an **offset survey**. (p. 211)



numerical data (or **quantitative data):** Data that involve numbers, such as heights, or the number of DVDs owned. (p. 15)

offset survey (or **traverse survey):** A method of measuring lengths in an irregularly-shaped field, using offsets to each irregularly-shaped field, using offsets to each corner of the field from a traverse line. (p. 210)

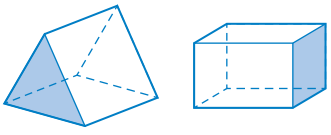


ogive: *See* **cumulative frequency polygon**. (p. 434)
on-road costs: After purchasing a motor vehicle, the additional costs required before it can be used on the road, such as registration, stamp duty and CTP insurance. (p. 370)
ordinal data: Categorical data that can be ordered, for example, level of swimming class. (p. 16)
outcome: In probability, the result of a situation or experiment. For example, when rolling a die, one possible outcome is 4. (p. 138)
outlier: An extreme (high or low) score in a data set that is much different than the other scores, either less than $Q_1 - 1.5 \times \text{IQR}$ or greater than $Q_3 + 1.5 \times \text{IQR}$. (p. 429)
overtime: Time worked beyond usual working hours, usually paid at a higher rate. (p. 91)

parallel of latitude: Small circle running around the Earth's surface, parallel to and measured north or south of the Equator (0° latitude). (p. 470)
Pareto chart: A combined column and line graph, where the columns are displayed in descending order and the line shows the cumulative frequency of the same data. Pareto charts are often used in quality control for businesses. (p. 28)
Pay As You Go (PAYG) tax: Income tax deducted from pay in instalments each payday by employer. (p. 117)
peak: A high point of a distribution, and the highest peak shows the mode. (p. 452)
per annum (p.a.): Per year. (p. 68)
percentage error: The maximum possible error for a measurement, expressed as a percentage.

$$\text{percentage error} = \frac{\text{absolute error}}{\text{measurement}} \times 100\%.$$ (p. 187)

percentiles: Values that divide a data set into 100 equal parts when the scores are arranged in order. (p. 419). *See also* **deciles** and **quartiles**.
pie chart: *See* **sector graph**.
piecework: Earnings based on the number of items processed, made or delivered, paid at a rate per item (rather than per hour). (p. 95)
population: All of the items under investigation. (pp. 18, 447). *See also* **sample**.
power (index): The number of times a base is multiplied by itself. In 2^5, the power is 5. (p. 61)
precision: The smallest unit on the scale of a measuring device. For example, the precision of a ruler may be one millimetre. (p. 186)
premium: The regular cost of an insurance policy. (p. 357)
present value: The current value of a sum of money, in contrast to some future value it will have when it has been invested at compound interest. (p. 336)
prime meridian (or **Greenwich meridian):** The 0° meridian of longitude that passes through Greenwich in London. The longitude of any point on Earth's surface is measured east or west of this meridian. (p. 471)
principal: The original amount of money invested or borrowed. (p. 328)
prism: A solid with flat faces and a uniform cross-section. (p. 217)



probability: A measure of how likely an event E is to occur, written $P(\text{E})$. Its value ranges from 0 to 1. (p. 138)
probability tree diagram: A probability tree diagram has the probabilities of each stage shown on the branches. (p. 168) *See also* **tree diagram**.
proportional to: In the same ratio as. If y is proportional to x, we say $y = kx$ and x and y have a direct linear variation. (p. 308). *See also* **direct linear variation**.

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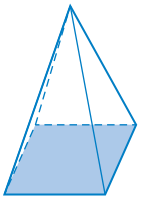
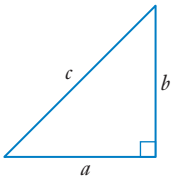
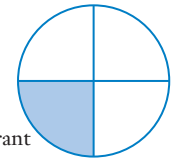
pyramid: A solid with a polygon as a base (for example, a rectangle, or a triangle) and triangular side faces that meet at a point (called the apex). (p. 83)



Pythagoras' theorem: In a right-angled triangle, the square of the hypotenuse is equal to the sum of the squares of the two shorter sides. $c^2 = a^2 + b^2$ (p. 198)



quadrant: Quarter of a circle. (p. 199)

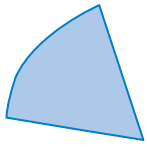

quadrant

quantitative data: *See* **numerical data**.
quarterly: Every 3 months. (p. 244)
quartiles (upper, middle and lower): The upper quartile is the 3rd **quartile** (Q_3) that cuts off the top 25% of scores in a data set; , the middle quartile (Q_2) is the median, and separates the two middle quarters; the lower quartile is the 1st quartile (Q_1) that cuts off the bottom 25% of scores. (p. 417) *See also* **deciles** and **percentiles**.

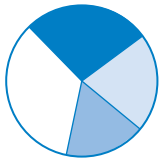
radius (plural: radii): The length of the interval joining the centre of a circle to the circumference. The radius is half of the **diameter**. (p. 197)
random sample: A sample for which every member of a population has an equal chance of selection. (p. 19)
range: The difference between the highest score and the lowest score in a set of data. (p. 426)
reaction distance: The distance travelled during a driver's **reaction time**. (p. 524). *See also* **braking distance** and **stopping distance**.
reaction time: The time between when a driver senses the need to stop and when the brakes are applied. (p. 524)
registration: *See* **vehicle registration**.
relative frequency: The number of times an event or score occurs, written as a fraction of the total number of events or scores. (p. 155)
retainer: A fixed amount paid to a salesperson before commission is added. (p. 96)
RHS: Right-hand side (of an equation). (p. 75)

rise: The vertical change in position between two points on a line; the number of units going up. Used with the **run** to calculate **gradient**. (p. 291)
royalties: Income earned by recording artists and authors, based on the number of copies of their work that are sold. (p. 95)
run: The horizontal change in position between two points on a line; the number of units going to the right. Used with the **rise** to calculate **gradient**. (p. 291)

salary: Fixed earnings quoted as a yearly amount, but paid weekly, fortnightly or monthly. (p. 92). *See also* **wage**.
salvage value: The estimated value that the owner is paid when the item is sold at the end of its useful life. (p.)
sample: A group of items selected from a population. (pp. 18, 447)
sample size: The number of items in a **sample**. (p. 19)
sample space: In probability, the set of all the possible outcomes of a situation or experiment. (p. 138)
scientific notation: A way of writing very large or very small numbers. For example, 98 000 000 = 9.8×10^7. (p. 193)
sector: Part of a circle bounded by an arc and two radii. (p. 199)



sector graph (or pie chart): A graph representing the parts of a whole population using a circle divided into proportionately sized sectors. Displays the same kind of data as a **divided bar graph**. (p. 5)



self-selected sample: A sample in which people volunteer to be part of the sample, such as an SMS poll or website survey, so it is not really random. (p. 19)
sewerage: The system of removing waste water from a home or building. (p. 243)
shape of a distribution: The way the data in a frequency distribution is spread, can be symmetrical, positively skewed or negatively skewed. (p. 452)
significant figures: Meaningful digits in a numeral that tell 'how many'. For example, 98 000 000 has two significant figures: 9 and 8. (p. 190)
simple interest (or flat rate interest): Interest earned or charged only on the original amount of money (principal) invested or borrowed. Differs from **compound interest**. (p. 328)

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simplify: In algebra, simplifying makes an algebraic expression less complex or complicated, which mainly involves collecting like terms. (p. 61)

skewed: The shape of a statistical distribution when most of the data scores are either low (positively skewed) or high (negatively skewed). The tail indicates the direction of the skew. (p. 452)

Negatively skewed Positively skewed

small circle: A slice through a sphere that does not pass through the centre. It has a smaller radius than a **great circle**. (p. 470)

speed: A rate that compares distance travelled with time taken. Speed is often measured in kilometres per hour (km/h) or metres per second (m/s).

$$\text{average speed} = \frac{\text{distance travelled}}{\text{time taken}}$$ (p. 521)

stamp duty: A tax paid to the Office of State Revenue when buying a vehicle, calculated on the market value of the vehicle. (p. 364)

standard deviation: (symbol σ) A statistical measure of the spread of a set of scores. (pp. 426, 445)

standard drink: A drink that contain 10 grams of alcohol, such as a small glass of beer or wine. (p. 504)

standard form notation: *See* **scientific notation**.

statistics: Collection, tabulation and displaying of data for the purpose of analysis. (p. 18)

stem-and-leaf plot: A 'number graph' that lists all the data scores, in groups. This stem-and-leaf plot shows 12 test scores, from 42 to 82. Different from a **dot plot**. (p. 45)

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

stopping distance: The distance travelled between when a driver senses the need to stop and when the vehicle stops completely, equal to the sum of the **reaction distance** and **braking distance**. (p. 524)

straight-line method of depreciation: Method of depreciation in which an item's value decreases by the same amount each period. (p. 343)

stratified sample: A sample consisting of a percentage of items from each 'strata' or 'layer' of a population. For example, a stratified sample from a population of 35% children and 65% adults should contain 35% children and 65% adults. (p. 19)

subject (of a formula)**:** The variable on its own on the left side of the '=' sign of a formula, what the formula describes, for example, A (for area) in the formula $A = \frac{1}{2}bh$. (p. 82)

substitute: To replace a pronumeral with a number. (p. 78)

summary statistic: A calculated value that represents or summarises a set of data (for example, the mean or the standard deviation). (p. 402)

summer time: *See* **daylight saving time**.

superannuation: A retirement fund for employees. Every payday, an employee and his/her employer invest a part of the employee's pay into a fund in order to provide income for the employee during retirement. (p. 108)

survey (land): To measure lengths and angles on a field and perform calculations on these measurements. (p. 210)

survey (statistical): To gather information for statistical purposes. (p. 6)

symmetrical: A distribution is symmetrical if the data are balanced or evenly spread about the centre of the distribution, with the mean, median and mode being equal. (p. 452)

systematic sample: A sample chosen by using a set pattern (for example, choosing every 10th number in a phone book). (p. 19)

tax debt: The amount by which the amount of **PAYG tax** already paid is below the amount of tax due. This is owed by the taxpayer to the Australian Office of Taxation. (p. 117)

tax deduction: *See* **allowable tax deduction**.

tax refund: The amount by which the amount of **PAYG tax** already paid is above the amount of tax due; given back to the taxpayer. (p. 117)

tax return: A form completed at the end of a financial year, to account for income earned, allowable deductions and tax already paid. Used to calculate a **tax refund** or **tax debt**. (p. 117)

taxable income: The part of a person's income that is taxed, equal to yearly income minus allowable deductions. (p. 113)

Third Party Property insurance: Motor insurance that covers damage to another person's ('third party') vehicle or property in an accident in which you are at fault. It does not cover damage to your vehicle. (p. 357). *See also* **comprehensive insurance** or **CTP insurance**.

time-and-a-half: Wages paid at 1.5 times the normal rate (for example, for working on a Saturday). (p. 91)

time zone: A zone of the world in which the time is the same for all places. (p. 486)

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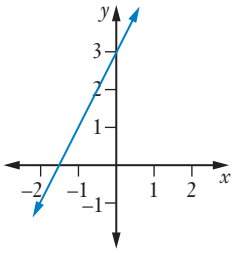
tonne: (t) A unit of mass equal to 1000 kg. (p. 181)
trapezoidal rule: Formula for finding the approximate area of an irregular-shaped block using the area of a trapezium. $A \approx \frac{h}{2}\left(d_f + d_l\right)$. (p. 211)
traverse survey: *See* **offset survey**.
tree diagram: A diagram for listing all the possible outcomes of a multi-stage experiment such as tossing three coins together. (p. 145)

unitary method: A way of calculating an amount by first finding one unit then multiplying. (p. 120)
UTC (Coordinated Universal Time) or **Greenwich Mean Time (GMT):** Local time at the prime meridian (0º longitude) time zone, from which other times in the world are measured. (p. 485)

value-added tax (VAT): A tax on goods or services used in some countries; similar to the GST in Australia. (p. 119)
variable: A pronumeral that can take a range of values (that is, it is not a **constant**). (p. 60)
vehicle registration: The yearly process of paying for and obtaining permission for using a vehicle on public roads. (p. 369)
vertical intercept (or *y*-intercept): The value at which a straight line graph cuts the vertical axis. For example, the vertical intercept of this graph is 3. (p. 301)



volume: The amount of space occupied by a solid, measured in cubic units. (p. 215)

wage: The amount earned by an employee for a set number of working hours, usually paid weekly. (p. 91). *See also* **overtime** and **salary**.
watt: A unit of power equal to one joule of energy per second. (p. 254)

***y*-intercept:** *See* **vertical intercept**.

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