

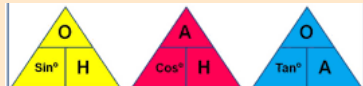
Straight line graphs

1	Midpoint of a line	Add the x coordinates and divide by 2, add the y coordinates and divide by 2
2	Axes	A fixed reference line on a grid to help show the position of coordinates
3	Linear graph	Straight line graph
4	$y = mx + c$	M is the gradient C is the y-intercept
5	Gradient	How steep the line is
6	Gradient	$m = \frac{\text{rise}}{\text{run}} = \frac{y_2 - y_1}{x_2 - x_1}$
7	Parallel lines	Have the same gradient
8	Perpendicular lines	The product of the gradients will always equal -1
9	Perpendicular lines	The gradient of perpendicular lines is the negative reciprocal
10	Reciprocal	Found by doing 1 divided by the number

Averages

1	Mode	Most common value
2	Median	Middle when in order
3	Mean	Add them all up and divide by the number of numbers
4	Range	Highest value take away the lowest value

Pythagoras & Trigonometry

1	Pythagoras theorem	$a^2 + b^2 = c^2$
2	Hypotenuse	The longest side of a right-angled triangle
3	Adjacent	The side next to the angle in a right-angled triangle
4	Opposite	The side opposite the angle in a right-angled triangle
5	SOH CAH TOA	

Equations and Formulae

1	Variable	A letter in an algebraic expression
2	Coefficient	How many of the variable you have
3	Expression	A mathematical statement written using symbols, numbers or letters; no equal sign
4	Collecting like terms	Adding and subtracting terms if they have the same letter
5	Formula	Shows the relationship between two or more variables
6	Substitution	Replace letters with numbers
7	Writing formulae	Substitute words for letters in the question
8	Solve	Find the answer of something
9	Inverse	Opposite
10	Rearranging formula	Use inverse operations on both sides of the formula until you find the expression for the letter

Angles		
1	Angle	The figure formed by two straight lines meeting
2	Polygon	a 2D shape with straight lines
3	Regular polygon	All the sides are equal and all angles are equal
4	Parallel	Straight lines that never meet
5	Transversal	A line that cuts across two or more other lines
6	Isosceles	Two equal size lengths and angles – in a triangle or trapezium
7	Sum	Addition – the total of all interior angles added together
8	Interior angle	Angles inside the shape
9	Protractor	Equipment used to measure angles
10	Compass	Equipment used to draw arcs and circles

Percentages		
1	Percentage	A proportion of a whole represented as a number between 0 and 100
2	Convert	Change into an equivalent relationship
3	Compound interest formula	$\text{Total accrued} = P \left(1 + \frac{r}{100} \right)^n$
4	Percentage change	$\text{Percentage change} = \frac{\text{Change}}{\text{Original}} \times 100$
5	Depreciation	A decrease in the value of something over time
6	Growth	The values increase exponentially, the constant multiplier is more than one.
7	Decay	The values get closer to 0, the constant multiplier is less than one.

Ratio		
1	Ratio	A statement of how two numbers compare
2	Equal parts	All parts in the same proportion
3	Proportion	A statement that links two ratios
4	Part	A section of a whole
5	Equivalent	Of equal value
6	Scale	The comparison of something drawn to its actual size
7	Order	To place a number in a determined sequence

Data		
1	Correlation	The relationship between two variables – positive, negative or no correlation
2	Relationship	Describing in words the connection between two variables
3	Line of best fit	A line that roughly goes through the middle of all the scatter points on a graph
4	Frequency polygon	Plot at the midpoint; connect points with a straight line
5	Bar charts	Frequency equally spaced on y axis
6	Bar charts	Categories equally spaced across the x axis
7	Bar charts	Equal gaps between bars. Both axes labelled.
8	Two-way tables	A way of sorting data so that the frequency of each category can be seen quickly and easily
9	Pie charts	$\text{Angle} = \frac{\text{frequency}}{\text{total}} \times 360^\circ$