



KNOWLEDGE ORGANISER

Year 10 – Maths – AC1

*Excellence.
No Excuses.*

Number 1			Statistics 1		
1	An integer is	a whole number	21	Mode is	the most frequent data value
2	Inequality signs are	$>, <, \leq, \geq$	22	Median is	then middle number when values are in order
3	A numerator is	the top number of a fraction	23	Mean is	adding up all the values and dividing by how many values there are
4	A denominator is	the bottom number of a fraction	24	Range is	Biggest value – smallest value
5	Equivalent fractions are	have the same value but use different numbers	25	Discrete data is	data that takes exact values
6	To round a number	you shorten or simplify it whilst keeping it close to its original value	26	Continuous data is	data that comes from a measurement
7	Estimate means	to find a solution that is close to the actual answer by rounding to 1 significant figure	27	Interval	all the numbers between two given numbers
8	Limit of accuracy	describe all the possible values that a rounded number could have been	28	Outliers	a value that "lies outside" (is much smaller or larger than) most of the other values in a set of data.
9	Bound	The maximum/minimum value a rounded number could have been	29	Conclusion	is a statement arrived at by applying a set of logical rules
Algebra 1			30	Correlation	the link between two variables
10	An Expression has	at least one letter, an operation and no equal sign	31	Sample	a selection taken from the population
11	Simplifying	is replacing a mathematical expression by an equivalent one, that is simpler (usually shorter)	32	Population	the whole group that is being studied
12	Substitute means	to replace a letter by a number	33	Quartile	the values that divide a list of numbers into quarters
13	Expand means	getting rid of brackets by multiplying	34	Interquartile range (IQR)	The IQR describes the middle 50% of values (upper quartile – lower quartile)
14	An equation contains	at least one letter, an equal sign and can be solved	2D, 3D Shapes and Measurements		
15	Coefficient is	the number in front of a letter	35	Parallel lines are	lines that if continued would never meet
16	Factorise means	putting brackets back in by taking out HCF	36	Perpendicular Lines are	lines that meet at a right angle
17	A formula contains	at least two letters and an equal sign	37	Compass points	the directions on the magnetic compass
18	Index (Power)	the index of a number says how many times to use the number in a multiplication	38	Locus	a set of points that follow a given rule
19	Identity	An equation that is true no matter what values are chosen	39	Cross section	the 2D shape made when a solid is cut through parallel to the base.
20	Function	A special relationship where each input has a single output.	40	Plan view	a drawing of something as viewed from above.
			41	Elevation	a drawing of something from the side/front
			42	Bearing	a three-figure angle, measured clockwise from north



VOCABULARY

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Word		Definition	Synonyms	Antonyms	Etymology
Bound		The upper or lower limit of a data set	<ul style="list-style-type: none"> Limit Boundary confines 	<ul style="list-style-type: none"> Unshackled Free Allowed 	c. 1300, "boundary marker," from Anglo-Latin <i>bunda</i>
Midpoint		The point that is the same distance from both things.	<ul style="list-style-type: none"> Middle Centre Halfway 	<ul style="list-style-type: none"> Extremity Edge Boundary 	
Prove		If you prove that something is true, you show by means of argument or evidence that it is definitely true.	<ul style="list-style-type: none"> Verify Confirm Justify 	<ul style="list-style-type: none"> Invalidate Disclaim refute 	From Latin <i>probāre</i> to test, from <i>probus</i> honest
Identity		An equation that is true no matter what values are chosen.	<ul style="list-style-type: none"> Identification Status coherence 	<ul style="list-style-type: none"> Difference Dissimilarity opposition 	From Late Latin <i>identitas</i> "identity, sameness,"
Quadratic		Where the highest exponent of the variable (usually "x") is a square (2).			<i>Quadratic equations</i> (1660s) so called because they involve the square of x.
Population		The whole group that is being studied.	<ul style="list-style-type: none"> Community Society State 	<ul style="list-style-type: none"> Sample Noncitizen outlander 	From Late Latin <i>populationem</i> (nominative <i>populatio</i>) "a people; a multitude,"
Sample		A selection taken from a larger group that will, hopefully, let you find out things about the larger group.	<ul style="list-style-type: none"> Cross section Snippet segment 	<ul style="list-style-type: none"> Population whole 	From Latin <i>exemplum</i> "a sample" (see example). Meaning "small quantity"
Quartile		The values that divide a list of numbers into quarters.	<ul style="list-style-type: none"> Quarter 25% Fourth 	<ul style="list-style-type: none"> Whole Entire portion 	Used in statistics, from 1879.
Correlation		When two sets of data are strongly linked together we say they have a High Correlation.	<ul style="list-style-type: none"> Relationship Link Similarity 	<ul style="list-style-type: none"> Difference Imbalance 	From Middle French <i>corrélacion</i> , from <i>cor-</i> "together"
Bisector		The line that divides something into two equal parts.	<ul style="list-style-type: none"> Cut in half Dividor Centerline 	<ul style="list-style-type: none"> Joiner 	From Modern Latin <i>bisectus</i> , from Latin <i>bi-</i> "two" + <i>secare</i> "to cut"