GCSE Maths PLC

Higher Tier: Collated content for Paper 1H, 2H and 3H

Number (*see Ratio – some overlap of topic areas)		Dr Frost Clip Number	R	A	G	Revised
Arithmetic	Negative number	K92,K93				
Fractions	Fraction of an amount	K101a				
	Fraction arithmetic	K98 - K100				
	Recurring decimal to fraction	K222				
	Product of prime factors	K114				
Properties	Laws of indices	K206				
	Negative and fractional indices	K207				
Powers and roots	Simplification of surds	K313				
	Conversion	K212				
Standard Form	Calculation	K214,K215				
Approximation and estimation	Error Interval	K216				
	Bounds	K216				
	Use of a calculator	E104				
Other	Product rule for counting	K225				
Algebra						
<u> </u>	Simplification	K80				
Manipulation	Expansion of bracket	K83				
	Factorisation	K178				
	Laws of indices	K206				
	Substitute values	K79				
	Change subject of a formula	K186				
	Forming an expression	K84				
	Expansion of brackets	K179				
	Difference of two squares	K179 K179a				
	•	K179a K201				
Equations and inequalities	Algebraic fractions	K181, K182				
	Linear equation					
	Form an equation	K183				
	Set up and solve equation	K183				
	Linear inequality	177				
	Quadratic equation	K267				
	Quadratic inequality	K292				
	Equations of parallel lines	K192				
	Equation of a tangent to a circle	K264				
	Simultaneous equations	K198, K272				
Graphs	linear/quadratic Coordinates	V75				
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	Quadratic graph	K203				
	Gradient of a straight line graph	K188				
	Gradients of parallel and	K192				
	perpendicular lines Velocity-time graph	K150				
	Gradient of a curve	K150 K254				
	Transformations of functions	K234 K284				
	Graphs of trigonometric functions	K297				
Functions	Inverse and composite functions	K276, K277				
Ratio, proportion and rates of change (*se	e Number – some overlap of topic					
Conversions	Time	K42				
	Area	K245				

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[Percentage of an amount	K108		
Percentages	Percentage decrease	K109		
	Depreciation	K113		
	Reverse percentage	K209		
Ratio	Write as a ratio	K105a		
	Use of ratio	K105e		
	1 : <i>n</i> form	K105b		
	Share in a ratio	K106		
	Ratio to fraction	K105c		
Proportion Compound Measures	Direct proportion	K223		
	Currency conversion	K91		
	Inverse proportion	K223		
	Equations of proportion	K223		
	Average speed	K231		
	Density	K232		
	Pressure	E232		
Growth and decay	General iterative processes	K288		
Geometry and measures		11200		
Shape	Transformations	K168 - K172		
Angles	Angles in a polygon	K227		
	Circle theorems	K306		
	Area of a rectangle	K71		
	Area of a triangle	K73		
	Area of a trapezium	K146		
	Area of a circle	K144		
Length, area and volume	Area of a sector	K145		
	Surface area of a cuboid	K162		
	Volume of a cube	K163a		
	Volume of composite solid	K163c		
	Similar triangles	K244		
Pythagoras's Theorem and Trigonometry	Pythagoras's Theorem	K228		
	Trigonometry	K241, K242		
	Sine and Cosine Rules	K302, K303		
·	Trigonometry in 3-D	K305		
	Exact trigonometric values	K243		
	Column vectors	K309		
Vectors	Vector geometry	K311		
Probability				
Probability	Probability	K53	0	
	Venn diagram	K219		
	Probability from a Venn diagram	K261		
	Independent combined events	K259		
	Dependent combined events	K260		
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	Cumulative frequency graph	K257		
	Box plot	K258		
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Measures	Mean	K58, K129		
	Lower and upper quartiles	K256a		
	Inter-quartile range	K256b		
	Compare distributions	K132, K133		
Populations	Capture-recapture method	K132, K133		
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