



Summer 2022 GCSE Maths Checklist (Edexcel)

Higher Tier

Please note, other topics may appear as part of a larger question. Topics in bold are also on the foundation list.

Number					
Topic	Paper			Details	Revised?
	1	2	3		
Approximation and estimation			✓	Bounds	
		✓		Error intervals	
Arithmetic			✓	Negative numbers	
Fractions	✓			Fraction arithmetic	
	✓			Fractions of amounts	
	✓			Recurring decimals to fractions	
Powers and roots	✓			Simplifying surds	
Properties			✓	Laws of indices	
	✓			Negative and fractional indices	
	✓			Product of prime factors	
Standard form	✓			Calculating	
	✓			Converting	
Other			✓	Product rule for counting	
		✓		Using a calculator	

Algebra					
Topic	Paper			Details	Revised?
	1	2	3		
Equations and inequalities		✓		Equations of parallel lines	
	✓	✓		Forming an equation	
		✓		Linear equations	
	✓			Linear inequalities	



Algebra					
Topic	Paper			Details	Revised?
	1	2	3		
Equations and inequalities	✓			Quadratic equations	
		✓		Quadratic inequalities	
			✓	Setting up and solving equations	
			✓	Simultaneous equations – linear/ quadratic	
	✓			The equation of a tangent to a circle	
Functions		✓	Inverse and composite functions		
Graphs		✓		Coordinates	
	✓			Gradient of a curve	
			✓	Gradient of a straight-line graph	
	✓			Gradients of parallel and perpendicular lines	
		✓		Graphs of trigonometric functions	
	✓			Quadratic graphs	
	✓			Speed-time graphs	
		✓		Transformations of functions	
Manipulation	✓		✓	Algebraic fractions	
			✓	Changing the subject of a formula	
			✓	Difference of two squares	
	✓	✓	✓	Expanding brackets	
		✓		Factorising	
			✓	Forming an expression	
		✓		Laws of indices	
	✓	✓	✓	Simplifying	
			✓	Substituting values	



Ratio, proportion and rate of change					
Topic	Paper			Details	Revised?
	1	2	3		
Compound measures			✓	Average speed	
	✓			Density	
		✓		Pressure	
Conversions		✓		Area	
			✓	Time	
Growth and decay			✓	General iterative processes	
Percentages		✓	✓	Depreciation	
			✓	Percentage decrease	
	✓			Percentage of an amount	
			✓	Reverse percentages	
Proportion		✓		Currency conversions	
		✓	✓	Direct proportion	
	✓			Equations of proportion	
		✓		Inverse proportion	
Ratio			✓	Ratios in the form 1:n	
	✓			Ratios to fractions	
	✓		✓	Sharing in a ratio	
	✓	✓		Using ratio	
	✓		✓	Writing as a ratio	

Geometry and Measure					
Topic	Paper			Details	Revised?
	1	2	3		
Angles	✓			Angles in a polygon	
		✓	✓	Circle theorems	
Length, area and volume		✓		Area of a rectangle	
	✓			Area of a sector	



Geometry and Measure					
Topic	Paper			Details	Revised?
	1	2	3		
Length, area and volume			✓	Area of a trapezium	
	✓			Area of a triangle	
			✓	Similar triangles	
	✓			Surface area of a cuboid	
		✓		Volume of composite solid	
	✓			Volume of a cube	
Pythagoras' theorem and trigonometry	✓			Exact trigonometric values	
	✓		✓	Pythagoras' Theorem	
		✓		Sine and Cosine Rules	
			✓	Trigonometry	
			✓	Trigonometry in 3 dimensions	
Shape		✓		Transformations	
Vectors			✓	Column vectors	
	✓			Vector geometry	

Probability and Statistics					
Topic	Paper			Details	Revised?
	1	2	3		
Probability			✓	Dependent combined events	
	✓			Independent combined events	
	✓			Probability	
		✓		Probability from a Venn diagram	
		✓		Venn diagrams	
Statistical diagrams		✓		Box plots	
	✓			Cumulative frequency graphs	
			✓	Frequency polygons	
			✓	Histograms	



Probability and Statistics					
Topic	Paper			Details	Revised?
	1	2	3		
Statistical Measures	✓			Interquartile range	
		✓		Lower and upper quartiles	
	✓			Mean	
Population		✓		Capture-recapture method	
		✓		Comparison of distributions	