MATHEMATICS

Please look at the list of topics below. Start with the topics in which you are least confident and work through the tutorials.

	Video	Exam Questions	Exam Question booklet	Booklet Answers
1a-1 Expanding brackets & simplifying	Expanding and Factorising	Exam Questions	Expand and Factorise	Solutions
1a-1 Expanding brackets (triple brackets)	Expanding Triple Brackets	Exam Questions	Expanding Triple Brackets	Solutions
1a-2 Surds	Surds	Exam Questions	Surds	Solutions
1a-3 Rules of indices	Indices	Exam Questions	Indices	Solutions
1a-3 Rules of indices (fractional and negative)	Fractional and Negative Indices	Exam Questions	Fractional and Negative Indices	Solutions
1b-1 Factorising expressions	Expanding and Factorising	Exam Questions	Expand and Factorise	Solutions
1b-1 Factorising expressions (algebraic fractions)	Algebraic Fractions	Exam Questions	Algebraic Fractions	Solutions
1b-2 Completing the square	Completing the Square	Exam Questions	Completing the Square	Solutions
1b-3 Solving quadratics	Solving Quadratics		Solving Quadratics	Solutions
1b-3 Solving quadratics (formula)	Quadratic Formula	Exam Questions	Quadratic Formula	Solutions
1b-3 Solving quadratics (harder factorising)	Factorising Harder Quadratics	Exam Questions	Factorising Harder Quadratics	Solutions
1b-4 Sketching quadratic graphs	Drawing Quadratic Graphs		Quadratic Graphs	Solutions
1c-1 Solving linear simultaneous equations	Simultaneous Equations	Exam Questions	Simultaneous Equations	Solutions
1c-2 Solving non-linear simultaneous equations	Quadratic Simultaneous Equations	Exam Questions	Quadratic Simultaneous Equations	Solutions
1c-3 Solving simultaneous equations graphically	Solving Simultaneous Equations Graphically		Solving Simultaneous Equations Graphically	Solution

			ns
1d-1 Linear Inequalities	Inequalities on Graphs	Inequalities on Graphs	Solutions
1d-2 Quadratic Inequalities	Quadratic Inequalities	Exam Questions	Quadratic Inequalities	Solutions
1e Sketching cubic and reciprocal graphs	Drawing Other Graphs: Cubic/Reciprocal	Cubic/Reciprocal Graphs	Solutions
1f Translating graphs	Transforming Graphs y=f(x)	Transforming Graphs y=f(x)	Solutions

	Video	Exam Questions	Exam Question Booklet	Booklet Answers
1a-1 Expanding brackets & simplifying	Expanding and Factorising	Exam Questions	Expand and Factorise	Solutions
1a-1 Expanding brackets (triple brackets)	Expanding Triple Brackets	Exam Questions	Expanding Triple Brackets	Solutions
1a-2 Surds	Surds	Exam Questions	Surds	Solutions
1a-3 Rules of indices	Indices	Exam Questions	Indices	Solutions
1a-3 Rules of indices (fractional and negative)	Fractional and Negative Indices	Exam Questions	Fractional and Negative Indices	Solutions
1b-1 Factorising expressions	Expanding and Factorising	Exam Questions	Expand and Factorise	Solutions
1b-1 Factorising expressions (algebraic fractions)	Algebraic Fractions	Exam Questions	Algebraic Fractions	Solutions
1b-2 Completing the square	Completing the Square	Exam Questions	Completing the Square	Solutions
1b-3 Solving quadratics	Solving Quadratics		Solving Quadratics	Solutions
1b-3 Solving quadratics (formula)	Quadratic Formula	Exam Questions	Quadratic Formula	Solutions
1b-3 Solving quadratics (harder factorising)	Factorising Harder Quadratics	Exam Questions	Factorising Harder Quadratics	Solutions
1b-4 Sketching quadratic graphs	Drawing Quadratic Graphs		Quadratic Graphs	Solutions
1c-1 Solving linear simultaneous equations	Simultaneous Equations	Exam Questions	Simultaneous Equations	Solutions
1c-2 Solving non-linear simultaneous equations	Quadratic Simultaneous Equations	Exam Questions	Quadratic Simultaneous Equations	Solutions
1c-3 Solving simultaneous equations graphically	Solving Simultaneous Equations Graphically		Solving Simultaneous Equations Graphically	Solutions
1d-1 Linear Inequalities	Inequalities on Graphs		Inequalities on Graphs	Solutions
1d-2 Quadratic Inequalities	Quadratic Inequalities	Exam Questions	Quadratic Inequalities	Solutions
1e Sketching cubic and reciprocal graphs	Drawing Other Graphs: Cubic/Reciprocal		Cubic/Reciprocal Graphs	Solutions
1f Translating graphs	Transforming Graphs y=f(x)		Transforming Graphs y=f(x)	Solutions
2a-1 Straight line graphs	Equation of a Line	Exam Questions	Equation of a Line	Solutions
2a-2 Parallel and perpendicular graphs	Parallel and Perpendicular Lines	Exam Questions	Parallel and Perpendicular Lines	Solutions
2a-2 Parallel and	Perpendicular lines & eq. of a tangent	Exam Questions	Perpendicular Lines	Solutions

perpendicular graphs (hards)				
2a-3 Pythagoras' theorem	Pythagoras	Exam Questions	Pythagoras	Solutions
2a-3 Pythagoras' theorem (3D)	3d Pythagoras	3d Pythagoras	Solutions	
2a-4 Proportionality	Direct and Inverse Proportion	Exam Questions	Direct and Inverse Proportion	Solutions
2b Circle theorems	Circle Theorems	Circle Theorems	Solutions	
4a Trigonometry (triangles)	SOHCAHTOA (Trigonometry)	Exam Questions	SOHCAHTOA	Solutions
4a Trigonometry (triangles) – sine rule	The Sine Rule	Exam Questions	The Sine Rule	Solutions
4a Trigonometry (triangles) – cosine rule	The Cosine Rule	Exam Questions	The Cosine Rule	Solutions
6a Rearranging equations	Rearranging Harder Formulae	Exam Questions	Rearranging Harder Formulae	Solutions
6b Vol & surface area of 3-D shapes	Volume of a Prism	Exam Questions	Volume of Prisms	Solutions
6b Surface Area	Surface Area	Exam Questions	Surface Area	Solutions
1c-1 Solving linear simultaneous equations	Simultaneous Equations	Exam Questions	Simultaneous Equations	Solutions
1c-2 Solving non-linear simultaneous equations	Quadratic Simultaneous Equations	Exam Questions	Quadratic Simultaneous Equations	Solutions
1c-3 Solving simultaneous equations graphically	Solving Simultaneous Equations Graphically	Solving Simultaneous Equations Graphically	Solutions	
1d-1 Linear Inequalities	Inequalities on Graphs	Inequalities on Graphs	Solutions	
1d-2 Quadratic Inequalities	Quadratic Inequalities	Exam Questions	Quadratic Inequalities	Solutions
1e Sketching cubic and reciprocal graphs	Drawing Other Graphs: Cubic/Reciprocal	Cubic/Reciprocal Graphs	Solutions	
1f Translating graphs	Transforming Graphs y=f(x)	Transforming Graphs y=f(x)	Solutions	
2a-1 Straight line graphs	Equation of a Line	Exam Questions	Equation of a Line	Solutions
2a-2 Parallel and perpendicular graphs	Parallel and Perpendicular Lines	Exam Questions	Parallel and Perpendicular Lines	Solutions
2a-2 Parallel and perpendicular graphs (harder)	Perpendicular lines & eq. of a tangent	Exam Questions	Perpendicular Lines	Solutions

2a-3 Pythagoras' theorem	Pythagoras	Exam Questions	Pythagoras	Solutions
2a-3 Pythagoras' theorem (3D)	3d Pythagoras	3d Pythagoras		Solutions
2a-4 Proportionality	Direct and Inverse Proportion	Exam Questions	Direct and Inverse Proportion	Solutions
2b Circle theorems	Circle Theorems	Circle Theorems		Solutions
4a Trigonometry (triangles)	SOHCAHTOA (Trigonometry)	Exam Questions	SOHCAHTOA	Solutions
4a Trigonometry (triangles) – sine rule	The Sine Rule	Exam Questions	The Sine Rule	Solutions
4a Trigonometry (triangles) – cosine rule	The Cosine Rule	Exam Questions	The Cosine Rule	Solutions
6a Rearranging equations	Rearranging Harder Formulae	Exam Questions	Rearranging Harder Formulae	Solutions
6b Vol & surface area of 3-D shapes	Volume of a Prism	Exam Questions	Volume of Prisms	Solutions