

I Can – Unit 3 (AQA Modular)

Tick each topic when you have completed a revision question

Topic		Grade	1	2	3	4	5
Number : Using a Calculator							
	Use BIDMAS to carry out operations in the correct order	D					
	Use a calculator to add, subtract, multiply and divide fractions	D					
	Use a calculator to add, subtract, multiply and divide mixed numbers	C					
Algebra: Equations and Formulae							
	Manipulate algebraic expressions	D					
	Set up and solve linear equations from real life situations	C					
	Solve non-linear equations using trial and improvement	C					
	Solve a pair of linear simultaneous equations	B					
	Solve quadratics by factorising	A					
	Solve quadratics using the formula	A					
	Set up and solve a real life problems using simultaneous equations	A					
	Set up and solve a real life problems using quadratics	A*					
Number: Proportions							
	Calculate average speed from data	D					
	Calculate distance from speed and time	D					
	Calculate time from speed and distance	D					
	Solve problems involving speed	C					
	Solve problems involving density	B					
Geometry: Shapes							
	Calculate the circumference and area of a circle	D					
	Calculate the area of a trapezium	D					
	Calculate the volume of prisms and cylinders	C					
	Calculate the length of an arc and the area of a sector	B					
	Calculate the surface area of cylinders, cones and spheres	B					
	Calculate the volume of pyramids, cones and spheres	B					
	Calculate the volume and surface area of compound 3D shapes	A					

I Can – Unit 3 (AQA Modular)

Tick each topic when you have completed a revision question

Topic		Grade	1	2	3	4	5
Geometry: Pythagoras and Trigonometry							
	Use Pythagoras' theorem in right angled triangles	C					
	Solve problems in 2D using Pythagoras' theorem	C					
	Solve problems in 3d using Pythagoras' theorem	B					
	Use trigonometry to find lengths of sides and angles in right angled triangles	B					
	Use trigonometry to solve problems	B					
	Solve complex 2D problems, using Pythagoras' theorem and trigonometry	A					
	Use the Sine and Cosine rules to calculate missing angles or sides in non-right angled triangles	A					
	Find the area of triangle using the formula for area = $\frac{1}{2} ab\sin C$	A					
	Use the Sine and Cosine rules to solve more complex problems involving non-right angled triangles	A*					
	Solve 3D problems, using Pythagoras' theorem and trigonometric ratios	A*					
Geometry: Angles and properties of circles							
	Find angles in triangles and quadrilaterals	D					
	Find interior angles and exterior angles in polygons	C					
	Find angles in circles	B					
	Find angles in circles using the alternate segment theorem	A					
	Use circle theorems to prove geometrical results	A*					

I Can – Unit 3 (AQA Modular)

Tick each topic when you have completed a revision question

Topic		Grade	1	2	3	4	5
Geometry: Transformation Geometry							
	Reflect a 2D shape in a line $x=a$ or $y=b$	D					
	Rotate a 2D shape about the origin	D					
	Enlarge a 2D shape by a whole number scale factor	D					
	Translate a 2d shape by a vector	C					
	Reflect a 2D shape in the line $y=x$ or $y=-x$	C					
	Rotate a shape about any point	C					
	Enlarge a 2D shape by a fractional scale factor	C					
	Enlarge a shape about any point	C					
	Know the conditions to show two triangles are congruent	B					
	Enlarge a shape by a negative scale factor	B					
	Prove two triangles are congruent	A					
Geometry: Constructions							
	Construct line and angle bisectors	C					
	Describe and draw the locus of a point from a given rule	C					
	Use loci to solve problems	C					
	Construct a perpendicular from a point on a line	B					
	Construct a perpendicular from a point to a line	B					
	Construct angles of 90° and 60°	B					
Measures: Similarity							
	Work out unknown lengths in 2D shapes, using scale factors	C					
	Use ratios and equations to find unknown lengths in similar triangles	B					
	Solve problems, using area and volume scale factors	A					
	Solve more complex problems, using area and volume scale factors	A*					

I Can – Unit 3 (AQA Modular)

Tick each topic when you have completed a revision question

Topic		Grade	1	2	3	4	5
Algebra: More graphs and equations							
	Draw quadratic graphs, using a table of values	C					
	Solve quadratic equations from their graphs	B					
	Plot cubic graphs, using a table of values	B					
	Recognise the shapes of graphs $y=x^3$ and $y = 1/x$	B					
	Draw a variety of graphs such as exponential and reciprocal graphs using a table of values	A					
	Solve equations, using the intersection of two graphs	A*					
	Use trigonometric graphs to solve sine and cosine problems	A*					
	Find two angles between 0° and 360° for any given value of a trigonometric ratio (positive or negative)	A*					
Number: Variation							
	Find formulae describing direct or inverse variation and use them to solve problems	A					
Geometry: Vectors							
	Solve problems, using addition and subtraction of vectors	A					
	Solve complex geometrical problems, using vectors	A*					
	Use proof in geometrical problems	A*					
Algebra: Transformation of graphs							
	Transform the graph of a given functions	A*					
	Identify the equation of a function from its' graph, which has been formed by a transformation on a known function.	A*					