

NAME	Assignment Grade		Review Exercise Grade	
My KS5 Target Grade is	End of Cycle Assessment			
	SAE	AE	E	BE

YEAR 12 Mathematics	CYCLE 1: Pure Unit 1
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	Knowledge	Specification Reference	Chapter	Check
Algebra and Functions	I understand and can use the laws of indices for all rational exponents.	2.1	1.1-1.4	
	I can use and manipulate surds, including rationalising the denominator.	2.2	1.5-1.6	
	I can work with quadratic functions & graphs. I can use the discriminant and the conditions for real and repeated roots.	2.3	2.1, 2.4-2.6	
	I can use completing the square to find the solution of quadratic equations. I can solve quadratic equations in a function of the unknown.	2.3	2.2- 2.3	
	I can solve simultaneous equations in two variables by elimination and by substitution, including one linear and one quadratic equation.	2.4	3.1-3.2	
Graphical	I can solve linear and quadratic inequalities in a single variable and interpret such inequalities graphically, including inequalities with brackets and fractions. I can also express solutions through correct use of 'and' and 'or', or through set notation. I can represent linear and quadratic inequalities such as $y > x + 1$ and $y > ax^2 + bx + c$ graphically	2.5	3.3-3.6	
	I understand how to use graphs of functions; sketch curves defined by simple equations including polynomials, including cubic, quartic, reciprocals and their asymptotes.	2.7	4.1-4.3	
	I can interpret algebraic solution of equations graphically; use intersection points of graphs to solve equations	2.7	4.4	
	I understand the effect of simple transformations on the graph of $y = f(x)$ including sketching associated graphs: $y = af(x)$, $y = f(x) + a$, $y = f(x + a)$, $y = f(ax)$	2.9	4.5-4.7	

YEAR 12 Mathematics		CYCLE 1: Pure Unit 2		
	Knowledge	Specification Reference	Chapter	Check
Co-ordinate Geometry	I understand and can use the equation of a straight line, including the forms $y - y_1 = m(x - x_1)$ and $ax + by + c = 0$ I know the gradient conditions for two straight lines to be parallel or perpendicular and am able to use straight line models in a variety of contexts.	3.1	5.1-5.5	
	I understand and can use the coordinate geometry of the circle including using the equation of a circle in the form $(x - a)^2 + (y - b)^2 = r^2$ I can also find the midpoint of a line segment.	3.2	6.1-6.2	
	I am able to complete the square to find the centre and radius of a circle I am able to find the points of intersection between a circle and a line	3.2	6.3	
	I know how to use of the properties of chords and tangents.	3.2	6.4	
	I can use the known properties to solve problems involving triangles and circles	3.2	6.5	
YEAR 12 Mathematics		CYCLE 1: Statistics Unit 1		
Statistical Sampling	I understand and can use the terms 'population' and 'sample' Use samples to make informal inferences about the population.	1.1	1.1	
	I understand how to use sampling techniques, including simple random sampling and opportunity sampling. I am able to describe advantages and disadvantages of sampling techniques.	1.1	1.2-1.3	
	I can select or critique sampling techniques in the context of solving a statistical problem, including understanding that different samples can lead to different conclusions about the population	1.1	1.2-1.3	
	I know the different types of data and can apply all sampling knowledge to the Large data set .	1.1	1.4-1.5	