

Higher Paper 4

	Covered before	Covered in year 11	R	A	G
Bidmas					
Area of a triangle and trapezium					
Solving simultaneous equations					
Pie charts (drawing and interpreting)					
Best value for money					
Angles in polygons					
Negative indices					
Percentage change (using multipliers)					
Sharing in a ratio					
Direct proportion					
Tree diagrams					
Circle theorems					
Proof of circle theorems					
Functions and inverse functions					
Composite functions					
Area of segment (using $\frac{1}{2} ab \sin C$)					
Solve quadratic equation by factorising					
Complete the square of a quadratic expression					
Identify turning point by completing the square					
Graph transformation					
Upper and lower bounds (applied to speed)					
Box plots and interpreting					
Velocity-time graphs					
Distance-time graphs					
Tangent to curve to estimate gradient					
Surds (and rationalising denominator)					

Paper 5					
	Covered before	Covered in year 11	R	A	G
Divide a decimal by a decimal					
Complete a sample space diagram for two events					
Speed = distance \div time problem involving unit conversions, fractions, percentages					
Scatter graphs and correlation					
Construct angle bisector to identify loci of points					
Direct and inverse proportion					
Forming and solving linear equation					
Represent a 2D vector as a column vector					
Add and subtract vectors					
Interpret compound interest growth					
Exponential growth and decay					
Solve quadratic inequality in one variable					
Find nth term of a fractional sequence					
Expanding triple brackets					
Volume of similar shapes					
Change recurring decimals to fractions					
Volume of sphere and cones					
Describe a sequence of transformations as a single transformation					
Invariance					
Solve linear and quadratic simultaneous equations to find a point of intersection					
Sketch graph of exponential function					

Sketch graph of trigonometric function					
Interpret Venn diagrams					

Paper 6

	Covered before	Covered in year 11	R	A	G
Recognise graphical misrepresentation					
Use the scale of a map and speed = distance \div time					
Find the ratio of quantities in the form 1 : n					
Trigonometry					
Use volume of a pyramid to find height					
LCM/HCF/ Product of primes					
Solve simple ratio problem					
Substitute into formulae					
Use a table of values to plot graph of a quadratic function					
Estimate roots of a quadratic					
Calculate the area of a sector					
Calculate percentage change					
Use algebra to construct a proof					
Tree diagrams and calculations					
Graphing inequalities					
Interpret a histogram with unequal class intervals					
Construct a histogram with unequal class intervals					
Convert a recurring decimal to an exact fraction					
Use the sine and cosine rule in a geometrical problem					
Calculate the equation of a tangent to a circle at a given point					

Simplify and manipulate algebraic fractions					
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