## Y10 Summer Mock Revision List: *Mathematics - Higher*

Exam: 1 x Non-Calculator 70 mins 2 x Calculator 70 mins

Content	Skills
• Number	<ul> <li>Surds</li> <li>Upper and Lower bounds</li> <li>Product Rule</li> <li>Error interval</li> <li>Estimating</li> <li>HCF and LCM</li> <li>Estimation</li> <li>Recurring decimals to fractions</li> <li>Arithmetic with fractions</li> <li>Standard form including calculating</li> <li>Simplifying indices including negatives and fractions</li> </ul>
• Algebra	<ul> <li>Algebraic Fractions</li> <li>Factorising and Solving quadratics including:         <ul> <li>Quadratic formula</li> <li>Completing the square</li> </ul> </li> <li>Rearranging formula</li> <li>Expanding and Simplifying Linear and Quadratic equations</li> <li>Expand and Simplify triple brackets</li> <li>Solving linear equations including forming</li> <li>Solving Simultaneous equations including quadratics and solving graphically</li> <li>Iteration</li> <li>Arithmetic, Geometric and Quadratic sequences</li> <li>Plotting linear graphs</li> <li>Equations of Parallel and Perpendicular lines</li> </ul>

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Ratio, proportion and percentages	<ul> <li>Share in a Given Ratio</li> <li>Direct and Inverse Proportion</li> <li>Simple and Compound interest</li> <li>Percentage change</li> <li>Reverse percentages and fractions</li> </ul>
Statistical measure and collection of data	<ul> <li>Upper and lower quartiles</li> <li>Stratified sampling</li> <li>Averages from frequency table - grouped and discrete data</li> <li>Calculation averages including:         <ul> <li>Mean</li> <li>Median</li> <li>Mode</li> <li>Range</li> </ul> </li> <li>Histograms</li> <li>Cumulative frequency and box plots</li> <li>Comparing data</li> <li>Scatter diagrams</li> <li>Frequency polygons</li> <li>Frequency trees</li> </ul>
• Geometry	<ul> <li>Area and perimeter of shape including circles and sectors</li> <li>Prove congruence of shapes</li> <li>Calculating length, area and volume of Similar Shapes</li> <li>Pythagoras including 3D</li> <li>Trigonometry including 3D and exact trig values</li> <li>Angles in parallel lines</li> <li>Circle theorems</li> <li>Angles in polygons</li> </ul>

Top Maths websites for revision are; Maths genie - <u>www.mathsgenie.co.uk</u> Corbett maths - <u>corbettmaths.com</u> Sparx maths - <u>www.sparxmaths.com</u>