

Topics in **bold** appear on both tiers - some of these may include the overlap questions that appear on both papers.

	Number	Ratio	Algebra	Geometry	Probability	Statistics
Paper 1	<ul style="list-style-type: none"> <li>• <b>Fraction of an amount</b></li> <li>• <b>Fraction arithmetic</b></li> <li>• Recurring decimal to fraction</li> <li>• <b>Product of prime factors</b></li> <li>• Negative and fractional indices</li> <li>• Simplification of surds</li> <li>• <b>Standard Form conversion and calculation</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Percentage of an amount</b></li> <li>• <b>Write as a ratio, share in a ratio</b>, use of ratio, ratio to fraction</li> <li>• Equations of proportion</li> <li>• <b>Density</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Simplification</b></li> <li>• Expansion of brackets</li> <li>• Algebraic fractions</li> <li>• <b>Linear inequality</b></li> <li>• Form an equation</li> <li>• <b>Quadratic equation</b></li> <li>• Equation of a tangent to a circle</li> <li>• <b>Quadratic graph</b></li> <li>• Speed-time graph</li> <li>• Gradients of parallel and perpendicular lines</li> <li>• Gradient of a curve</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Angles in a polygon</b></li> <li>• Area of a triangle</li> <li>• <b>Volume of a cube</b></li> <li>• Surface area of a cuboid</li> <li>• Area of a sector</li> <li>• Pythagoras's Theorem</li> <li>• <b>Exact trig. values</b></li> <li>• Vector geometry</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Probability</b></li> <li>• Independent combined events</li> </ul>	<ul style="list-style-type: none"> <li>• Cumulative frequency</li> <li>• Mean</li> <li>• Interquartile range</li> </ul>
Paper 2	<ul style="list-style-type: none"> <li>• <b>Error interval</b></li> <li>• Calculator use</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Area</b></li> <li>• <b>Depreciation</b></li> <li>• <b>Use of ratio</b></li> <li>• <b>Direct proportion</b></li> <li>• <b>Currency conversion</b></li> <li>• Inverse proportion</li> <li>• Pressure</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Simplification</b></li> <li>• <b>Expansion of bracket</b></li> <li>• <b>Factorisation</b></li> <li>• <b>Laws of indices</b></li> <li>• Linear equation</li> <li>• Equations of parallel lines</li> <li>• Form an equation</li> <li>• Quadratic inequality</li> <li>• <b>Coordinates</b></li> <li>• Transformations of functions</li> <li>• Graphs of trigonometric functions</li> <li>• Inverse and composite functions</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Transformations</b></li> <li>• Circle theorems</li> <li>• <b>Area of a rectangle</b></li> <li>• Volume of composite solid</li> <li>• Sine and Cosine Rules</li> </ul>	<ul style="list-style-type: none"> <li>• Venn diagram</li> <li>• Probability from a Venn diagram</li> </ul>	<ul style="list-style-type: none"> <li>• Box plot</li> <li>• Lower and upper quartiles</li> <li>• Compare distributions</li> <li>• Capture-recapture method</li> </ul>
Paper 3	<ul style="list-style-type: none"> <li>• <b>Negative number</b></li> <li>• Laws of indices</li> <li>• Bounds</li> <li>• Product rule for counting</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Time</b></li> <li>• <b>Percentage decrease</b></li> <li>• Depreciation</li> <li>• <b>Reverse percentage</b></li> <li>• <b>Write as a ratio</b></li> <li>• <b>1 : n form</b></li> <li>• Share in a ratio</li> <li>• <b>Direct proportion</b></li> <li>• <b>Average speed</b></li> <li>• General iterative processes</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Simplification</b></li> <li>• <b>Expansion of bracket</b></li> <li>• <b>Substitute values</b></li> <li>• Difference of two squares</li> <li>• Expansion of brackets</li> <li>• <b>Change subject of a formula</b></li> <li>• <b>Forming an expression</b></li> <li>• Algebraic fractions</li> <li>• Set up and solve equation</li> <li>• Simultaneous equations linear/quadratic</li> <li>• Gradient of a straight line graph</li> </ul>	<ul style="list-style-type: none"> <li>• Circle theorems</li> <li>• <b>Area of a trapezium</b></li> <li>• Similar triangles</li> <li>• <b>Pythagoras theorem</b></li> <li>• Trigonometry</li> <li>• Trigonometry in 3-D</li> <li>• Column vectors</li> </ul>	<ul style="list-style-type: none"> <li>• Dependent combined events</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Frequency polygon</b></li> <li>• Histogram</li> </ul>