

# MATHS HIGHER

## Revision Guide

**Paper 1 (non-calculator):** Wednesday 5th December 2018

**Paper 2 (calculator):** Monday 10th December 2018

**Paper 3 (calculator):** Monday 17th December 2018

Each paper is 1 hour 30 minutes long. It is recommended that you use your class notes, <http://vle.mathswatch.com> and <https://corbettmaths.com/contents/> to help with your revision. Below are the clips that are relevant to the topics that are to be tested.

MathsWatch is at [www.vle.mathswatch.co.uk](http://www.vle.mathswatch.co.uk)

Your username is the same as your **mymaths** username **@bishopchalloner**

Your password is **bishop**

When you log in, click on videos. Ensure that you have selected qualification as 'GCSE' to be able to view the appropriate clip numbers.

Algebra		
Topic	MathsWatch?	Corbett?
Algebraic manipulation and substitution		
Expanding brackets and factorising		
Expanding and simplifying, including quadratics		
Solving linear equations		
Rearranging formulae		
Factorising and solving quadratics		
Solving simultaneous equations, including with a quadratic		
Simplifying algebraic fractions		
Drawing quadratic/cubic graphs and solving equations graphically		
Inequalities and quadratic inequalities		
Sequences, including quadratic nth term		
Indices		
Graphical regions		
Distance-Time Graphs and Velocity-Time Graphs		
Straight Line Graphs		
Recognising graphs (cubic, reciprocal, trigonometric)		
Functions, including composite and inverse		
Estimating areas under curves		
Tangents to circles		
Iteration		
Transforming functions		
Proof		

<b>Number, Ratio &amp; Proportion</b>		
<b>Topic</b>	<b>MathsWatch?</b>	<b>Corbett?</b>
Adding, subtracting, multiplying & dividing decimals		
Adding, subtracting, multiplying & dividing fractions		
Ordering fractions, decimals and percentages		
Converting recurring decimals to fractions		
LCM, HCF, prime factor decomposition		
Percentages of amounts		
Increase/decrease by a percentage		
Percentage change		
Reverse percentage problems		
Compound interest and depreciation		
Factors, multiples and primes		
Ratio (sharing in a given ratio)		
Proportion (including recipe questions, value for money and exchange rates)		
Direct and inverse proportion		
Similar shapes		
Compound measures		
Standard form		
Compound units (speed, distance, time; mass, density, volume)		
Bounds		
Estimation		
Indices including fractional and negative		
Surds, including rationalising denominators		

## Handling Data and Geometry

Topic	MathsWatch?	Corbett?
Averages & range		
Calculating probabilities		
Mutually exclusive events		
Listing outcomes		
Experimental probabilities		
Scatter Diagrams		
Tree diagrams		
Angles, including parallel lines and polygons		
Area & perimeter of rectangles and triangles		
Area & circumference of a circle		
Volume and surface area of prisms		
Pythagoras' Theorem		
Venn Diagrams and Set Notation		
Area of compound shapes		
Trigonometry, including 3D trigonometry		
Areas of sectors		
Vectors		
Polygons		
Cumulative Frequency, Box Plots and IQR		
Histograms		
Circle Theorems		
Loci		
Transformations (rotation, reflection, translation, enlargement including negative scale factors)		
Nets, plans & elevations		
Nets, plans and elevations		