

Subject	Mathematics
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Exam Board	AQA	Course Code	8300
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Overview

Mock Assessments

One Non-Calculator Paper 90 minutes
 Two Calculator Papers 90 minutes for each paper.
 Full mathematics equipment required.

Topics to be covered for Non-Calculator Paper

Foundation Tier

- Add, subtract, multiply and divide integers and decimals
- Area of 2D shapes
- Arithmetic and geometric progressions.
- Averages, pictograms, bar charts, scatter graphs, Venn diagrams
- Being able to give answers in terms of π
- Bidmas
- Converting between units
- Equations of lines ($y=mx+c$)
- Expand and factorise
- Fraction, decimal and percentages
- Negative numbers
- Probability
- Ratio
- Rearrange formula, substituting (into expressions and formula)
- Solving linear equations
- Standard form
- Time
- Transformations
- Trigonometry angles
- Working with money

Higher Tier

- Algebraic Fractions/Expressions
- Arithmetic and geometric progressions
- Area and Perimeter
- Averages, scatter graphs, Venn diagrams, histograms
- Being able to give answers in terms of π
- Circle theorem
- Column vectors
- Direct and Inverse Proportion (K)
- Equation of lines ($y=mx+c$)
- Expand, factorise and solve quadratics
- Fractions, Decimals and Percentages
- Indices
- Prime factors
- Ratio
- Sequences – iterative process
- Simultaneous equations
- Surface area
- Surds
- Transformations of Graphs, curves
- Trigonometry angles
- Working with money

Mock Assessments

One Non-Calculator Paper 90 minutes
Two Calculator Papers 90 minutes for each paper.
Full mathematics equipment required

Topics to be covered for Calculator Paper

Foundation	Higher
<ul style="list-style-type: none"><input type="checkbox"/> Angles<input type="checkbox"/> Area of 2D shapes<input type="checkbox"/> Averages, mean and median from frequency tables, estimate the mean, pie charts<input type="checkbox"/> Bounds<input type="checkbox"/> Congruent & similar<input type="checkbox"/> Converting between units<input type="checkbox"/> Distance-Time Graphs<input type="checkbox"/> DST/ MDV<input type="checkbox"/> Elevations<input type="checkbox"/> Equations of lines ($y = mx + c$ and properties such as parallel lines, midpoint of a line)<input type="checkbox"/> Expand and factorise linear and quadratic expressions<input type="checkbox"/> Frequency trees<input type="checkbox"/> Function machines<input type="checkbox"/> HCF & LCM<input type="checkbox"/> Identifying equations, expressions, inequalities terms and identities<input type="checkbox"/> Inequalities<input type="checkbox"/> Listing strategies<input type="checkbox"/> Loci and Constructions<input type="checkbox"/> Parts of a circle<input type="checkbox"/> Percentages & Fractions<input type="checkbox"/> Pythagoras<input type="checkbox"/> Quadratic graph – include roots<input type="checkbox"/> Ratio & proportion<input type="checkbox"/> Rounding<input type="checkbox"/> Scale drawing<input type="checkbox"/> Solving equations<input type="checkbox"/> Square numbers, cube numbers, multiples, factors<input type="checkbox"/> Time series graph<input type="checkbox"/> Transformations<input type="checkbox"/> Vectors<input type="checkbox"/> Volume<input type="checkbox"/> Working with money	<ul style="list-style-type: none"><input type="checkbox"/> Algebraic fractions<input type="checkbox"/> Angles<input type="checkbox"/> Area and Perimeter of 2D shapes<input type="checkbox"/> Bounds<input type="checkbox"/> Box plots<input type="checkbox"/> Circle theorem<input type="checkbox"/> Congruent<input type="checkbox"/> Conversions between units<input type="checkbox"/> Cumulative frequencies<input type="checkbox"/> DMV<input type="checkbox"/> Distance-Time Graphs<input type="checkbox"/> Equations of a circle, tangent, curve<input type="checkbox"/> Expanding and factorising quadratics<input type="checkbox"/> HCF and LCM<input type="checkbox"/> Inequalities and regions<input type="checkbox"/> Instantaneous rate of change<input type="checkbox"/> Iterative process<input type="checkbox"/> Loci and constructions<input type="checkbox"/> Probability and relative frequencies<input type="checkbox"/> Properties of quadratic graphs<input type="checkbox"/> Pythagoras, trigonometry lengths/ angles and further trigonometry<input type="checkbox"/> Ratio - all aspects<input type="checkbox"/> Similar shapes<input type="checkbox"/> Standard form<input type="checkbox"/> Time series graph<input type="checkbox"/> Transformations<input type="checkbox"/> Transformation of graphs<input type="checkbox"/> Trigonometric Graphs<input type="checkbox"/> Trigonometry – length and angles<input type="checkbox"/> Vectors<input type="checkbox"/> Venn diagrams and unions<input type="checkbox"/> Volume<input type="checkbox"/> Working with Fractions, Decimals and Percentages<input type="checkbox"/> Working with frequency tables - Estimating the mean, finding the median<input type="checkbox"/> $y = mx + c$ (include parallel and perpendicular)

Useful revision resources

Websites

Mathswatch - <https://vle.mathswatch.co.uk/vle/>

Corbett Maths – <https://corbettmaths.com/>

GCSEPod - <https://www.gcsepod.com/>

Seneca Learning - <https://senecalearning.com/en-GB/>

BBC Bitesize Learning - <https://www.bbc.co.uk/bitesize/examspecs/z8sg6fr>

Oak National Academy - <https://classroom.thenational.academy/subjects-by-key-stage/key-stage-4/subjects/maths>

Recommended Revision Guides

Collins GCSE AQA revision guides - £4.50 from your mathematics teacher

Corbett Maths revision cards - £6.50 from your mathematics teacher

Recommended Calculators

Casio fx-83 GTX, fx-85 GTX, Casio Classwiz EX-991 (recommended if continuing onto A-Level Mathematics)

Revision Tips

Revision for Mathematics is based upon practice (and more practice). You need to be confident at the skills and concepts that make up the course in order to be able to work through the more challenging problems. Revision should be interactive, not just reading notes

Students can work through the Mathswatch 6 week plan (available from the Mathswatch Website under Extras > GCSE) or identify key topic areas via the Mathswatch list below. On the 6 week plan, students can split it up according to the two assessment periods)

A potential plan of action would be

- Work through the plans below watching the relevant videos (try the one minute videos first and if you do not understand then watch the longer videos)
- Attempting the interactive questions if needed
- Work through maths problems and past papers.
- Do not just read your notes/revision guides as you need to practice your Maths skills.

Any additional information will be placed into Google Classrooms and the GSHS Maths Revision Area

<http://bit.ly/GSHSMathsRevision>