



Topic Lists for Revision

Subject: Maths Higher

Topic or component: Paper 1 &2

Paper 1 – (no calculator)

- Number properties – square and cube numbers
- Ordering values
- Prime factorisation – answers in index form
- Laws of indices
- Surds – rationalising the denominator
- Surds – multiplication
- Converting fractions, decimals and percentages
- Reciprocal of a fraction
- Adding algebraic fractions
- Dividing in a ratio
- Writing a ratio from an equation
- Direct proportion – writing an equation
- Inverse proportion – understanding
- Venn diagrams – completing
- Factorising an expression as the difference of two squares
- Factorising a quadratic
- Solutions to a quadratic equation
- Arithmetic (linear) sequence with algebraic terms
- Geometric sequence – finding missing values
- Iteration – using an iterative formula
- Writing the equation of a straight line from a graph
- Solving simultaneous equations
- Scatter graphs – correlation
- Histograms – completing
- Perimeter of a parallelogram
- Circumference of a circle and perimeter of a part circle
- Trigonometry
- Trigonometric values
- Translation of a graph
- Similar shapes – ratio of lengths, area and volume

- Circle theorems – cyclic quadrilateral
- Writing a column vector

Paper 2 – (calculator)

- Number properties – highest common factor
- Estimating
- Upper and lower bounds
- Standard form – identifying a number written in standard form
- Percentages – writing an amount as a percentage of another
- Percentage of an amount
- Repeat percentage change
- Fraction of an amount
- Simplifying algebraic fractions
- Ratio – changes to a ratio
- Product rule for counting
- Substitution
- Rearranging equations
- Factorising a quadratic expression
- Solving equations with algebraic fractions
- Solving a quadratic equation
- Solving a quadratic equation graphically
- Finding the turning point of a quadratic equation graphically
- Identities
- Probability of combined events
- Gradient of a straight line given two points
- Coordinates which satisfy an equation
- Exponential graphs
- Trigonometric graphs
- Congruent triangles – rules for congruence
- Area of a trapezium
- Transformations – rotation
- Transformations – translation
- Transformations – invariant points
- Trigonometry – finding a side
- Trigonometry – finding an angle
- Pythagoras' theorem
- Surface area of a cuboid
- Volume of a cuboid
- Volume of a prism
- Interior angles of a regular polygon
- Speed-time graphs
- Averages – finding the mean
- Averages – finding a value when the mean is known
- Cumulative frequency graph – estimating the median

- Time series graphs – plotting
- Time series graph – estimating from a time series graph

Strategies and Resources for Revision:

Maths Watch

Complete the assigned Mathswatch assignment

Link here: <https://vle.mathswatch.co.uk/vle/>

Username: firstnames surname@earls e.g. joebloggs@earls (no space)

Password: prime2

Hegarty Maths

Search for topics on Hegarty Maths, watch the videos to help you revise the content and make notes from the videos going through the examples. Then attempt the quizzes to check you understand the content.

You can also use the revise section of the website to practice topics you have completed on there previously.

Link here: <https://hegartymaths.com/login/learner>

Corbett Maths, watch the videos to help you revise the content and attempt the questions to check you understand. The “textbook exercise” questions are more for fluency practice (checking you understand the skills and methods involved) and the “practice questions” are more like exam style questions.

Link here: <https://corbettmaths.com/contents/>

Youtube:

Search the playlists on Miss T Haywood or Miss A Barnes for Earls specific topics modelling the methods for questions

https://www.youtube.com/channel/UC_PUOo81tue62tvuOJIGbmg

<https://www.youtube.com/channel/UCDvcyOCqc9NBriX487f-dGg>