

Mathematics

5th form to Lower Sixth transition

The following number and algebra topics underpin much of the A-Level Mathematics course and you should be fluent in these skills.

Number basics

- BIDMAS (order of operations)
- fractions (add, subtract, multiply, divide, convert top-heavy & mixed, cancel down)
- negative numbers (add, subtract, multiply, divide)

Indices

- three laws of indices (multiplication, division, brackets)
- zero, negative and fractional indices
- simplify expressions involving indices

Surds

- simplify
- add & subtract
- multiply & divide
- rationalise a simple denominator

Inequalities

- linear (especially involving multiplying or dividing by a negative number)
- simple quadratic

Straight line graphs

- identify gradient and y-intercept
- sketch and give equations for linear graphs
- gradient, midpoint and length of a line segment

Quadratics

- factorise (put into brackets)
- solve by factorising
- solve using the quadratic formula (answer in surd form)
- solve simultaneous linear and quadratic equations

Algebraic Fractions

- simplify
- add & subtract
- multiply & divide

Here is a link to some helpful videos:

https://www.pearson.com/uk/educators/schools/subject-area/mathematics/unrivalled-support/support-from-pearson/gcse-maths-transition-to-a-level.html?utm_source=tec&utm_medium=email&utm_campaign=GBEDMA0820CATCH&dm_i=60IR,3XPJ,19NM7K,G5A3,1

There will be a test in the first week of September on these basic topics to make sure you have a good foundation for the course, with a pass mark of 75% for single Maths students and 85% for Further Maths students. So when doing the sample papers, you should be aiming for these scores.