

Maths Exams for entry to Tonbridge Lower Sixth in 2011.

There are a number of options for studying Maths in the Sixth Form at Tonbridge, and those options determine which entrance paper you should take. You need to be clear whether you will be taking single maths or further maths at A Level (or 9 module maths, which is effectively single maths plus an AS in Further Maths), and combine this with your experience so far. Please ensure that you take the right paper, which will be available at your exam centre. The exams options, and syllabuses, are appended.

MATHEMATICS EXAMINATION PAPER OPTIONS FOR SIXTH FORM ENTRY IN SEPTEMBER 2011

Option 1

Single Mathematics paper (45 minutes duration: Calculators allowed). For candidates who will be taking GCSE/IGCSE Mathematics or equivalent in June 2011. **This paper is for boys wishing to study single maths at A Level. (i.e. you must choose Maths +3 other subjects).**

Option 2

Further Mathematics paper (1 hour duration: No calculators allowed). For candidates who have already taken GCSE/IGCSE Mathematics or equivalent in June 2010. **This paper is for boys wishing to study further maths at A Level; please note that this would take up two of your option blocks on the timetable, (i.e. you must choose Maths, Further Maths + 2 other subjects).**

Option 3

Single Mathematics paper (9 modules) (45 minutes duration: No calculators allowed). For candidates who have already taken GCSE/IGCSE Mathematics or equivalent in June 2010. **This new course, offered from September 2010, will lead to an A level in Single Mathematics plus an AS in Further Maths; please note that this would take a single block in the timetable (i.e. you must choose Maths +3 other subjects).**

Option 4

Further Mathematics paper (45 minutes duration: Calculators allowed). For candidates who will be taking GCSE/IGCSE Mathematics or equivalent in June 2011. **This new course, offered from September 2010, will lead to A Levels in both Maths and Further Maths; please note that this would take two blocks in the timetable (i.e. you must choose Maths, Further Maths + 2 other subjects).**

For further information, or if you have any questions please contact Dr Huw Evans at hbe@tonbridge-school.org .

Maths Syllabus for LVI Entry to Tonbridge

(having completed (I)GCSE or equivalent in June 2011)

- Quadratics: Factorising and Formula
- Linear Inequalities and Linear Simultaneous Equations
- Averages and Probability
- Area and Volumes including scale factors
- Sine, cosine rule and area of the triangle
- Straight Line Coordinate Geometry
- Bounds in Calculations
- Algebraic Fractions
- Rational Numbers and Surds
- Recognising Graphs of $y = Ax^n$ with $n = -2, -1, 0, 1, 2, 3$
- Simultaneous Equations with one linear and one quadratic

Further Maths Syllabus for LVI Entry to Tonbridge

(having completed (I)GCSE or equivalent in June 2010)

The syllabus for Further Maths Syllabus assumes knowledge of the Maths Syllabus as well as the following list of topics:

- Binomial
- Quadratic Inequalities
- Completing the Square
- Factor Theorem
- Harder Trigonometry
 1. Graphs of Trigonometric Functions
 2. Solution of Linear and Quadratic Trigonometric Equations
 3. Knowledge of $\tan x = \frac{\sin x}{\cos x}$, $\sin^2 x + \cos^2 x = 1$
 4. Radians
- Equation of a Circle
- Differentiation of Polynomials
 1. Equations of Tangents and Normals
 2. Finding and classifying maxima and minima