



Advanced Mathematics
Support Programme®



Year 12 & 13 Regular Problem Solving Classes

Canterbury

16th November 2019

Overview

A series of 10 maths problem-solving sessions designed to give students the confidence to apply for university courses that require or take into consideration achievement in an admissions test.

These regular classes offer students the opportunity to develop mathematical problem-solving skills through discussion and collaboration. They are designed to help students to develop strategies and confidence when tackling unfamiliar problems in maths and will help with preparations for taking advanced papers such as the MAT, TMUA and STEP examinations.

At the same time, the problems used in the course are fun and rewarding. Attending the sessions will greatly enrich students' mathematical experience and help them to develop a better understanding of A level Mathematics.

Aims

- To develop initial strategies when dealing with maths problems
- To develop confidence when dealing with maths problems
- To develop resilience when dealing with maths problems
- To provide some initial information about the problem solving involved in university admissions tests
- To provide a platform on which to build secure problem solving techniques

Who will benefit from attending?

The course is designed for A level Mathematics students who have an enquiring mind and wish to develop their problem solving ability for their A level studies and beyond.

It is particularly useful for those students who wish to make the first steps in preparing for university admissions tests such as the MAT, TMUA and STEP examinations.

Content

The course covers a wide range of mathematical disciplines with problems. These can include:

- Algebra: the difference between two squares and other identities
- Geometry: angles, triangle and circles
- Number: digits and divisibility
- Algebra: forming and solving equations
- Combinatorics: systematic counting
- Number: prime factorisation, fractions and irrationals
- Algebra: sequences and series
- Number: indices and logarithms
- Algebra: quadratics, cubics and other polynomials
- Geometry: trigonometry
- Combinatorics: further systematic counting and placement
- Geometry: coordinates and vectors
- Calculus: curve sketching and differentiation
- Calculus: integration
- Combinatorics: the binomial expansion

Materials and Equipment

Beyond pen and paper students do not need any special equipment for the course although a smartphone with the GeoGebra or the Desmos apps installed may be useful.

Other Information

Dates of sessions are:

16 November 2019, 30 November 2019, 14 December 2019, 18 January 2019, 1 February 2020, 7 March 2020, 21 March 2020, 28 March 2020, 25 April 2020 and 9 May 2020.

All sessions run on Saturday mornings from 09.30 until 12.00. It is expected that students registering for the course will be able to attend the vast majority of the sessions.

The course is offered FREE OF CHARGE to students from state-funded schools

Eligibility

Please note that this course is now only taking applications from year 13 students intending to sit STEP examinations next summer.

Key Facts

Event ref:	#6497
Audience:	Students
Target year:	Year 12 & 13
Curriculum focus:	University admissions tests
Event format:	Student course
Event length:	25 hours
Region:	London and South East
Venue:	Sibson Building, University of Kent, Park Wood Road, Canterbury, Kent, CT2 7PE
Date:	Sat 16th Nov 2019
Course times:	09:30 - 12:00

Registration

For more information, or to register for this event, please visit <https://amsp.org.uk/events/details/6497>