

## The Advanced Mathematics Support Programme

# Problem solving in A level & Core maths

**A one day conference featuring activities to help students develop their problem solving skills**

**Hosted at University of Bedfordshire, Pollhill Avenue, Bedford MK41 9EA  
Thursday 14<sup>th</sup> June 2018 09:30 – 15:30**



One of the overarching themes of both A level maths and Core maths is the requirement for students to solve mathematical problems.

This conference is suitable for all A level and core maths students who wish to develop their problem solving skills.

The workshops provide a variety of activities designed to get students to engage with problem solving.

There will be an optional session for teachers on strategies for supporting students.

## Conference Outline

### Workshops

#### **A: Mathematical problem solving from real life situations (including Fermi estimates)**

In this workshop students learn how to break down problems to identify the key information they will need. Only basic arithmetical skills are required to solve the problems but each one requires students to have a clear idea of the information they need and what makes a good estimate.

#### **B: Problem solving in a group**

In this workshop students will work in groups to solve a range of problems, making use of information, knowledge and skills shared between the members.

#### **C: Asking the right questions**

In this workshop students will learn how to ask themselves some key questions when attempting mathematical problems. They will see how problems are developed from simple ideas and attempt to write some problems of their own.

#### **D: Problem solving in A level maths and core maths assessment questions**

This workshop is made up of a selection of problems. The students will be able to consider questions in A level maths and core maths, gaining an appreciation of how questions can be structured then determine possible approaches. Questions will not be taken from further maths papers since the event is intended to be easily accessible to students who are not studying further maths.

**Timetable:**

09:30	Registration, refreshments and an introductory problem
09:45	Introduction
10:00	Workshop A: Mathematical problem solving from real life situations
11:00	Refreshments
11.15	Workshop B: Problem solving in a group (Optional training workshop for teachers)
12.15	Lunch (complimentary vouchers available for students and teachers to purchase lunch)
13:00	Workshop C: Asking the right questions
14.00	Refreshments
14:15	Workshop D: Problem solving in A level maths and core maths assessment questions
15.15	Closing plenary
15.30	End

**Venue:** University of Bedfordshire, Pollhill Avenue, Bedford MK41 9EA

**Application:**

The event is free of charge thanks to funding from the Further Maths Support Programme  
To apply, please complete the online form at: <https://goo.gl/forms/ZWdWEY4FNCr6qfPe2>

**Further information**

For more information email: [valpritchard@furthermaths.org.uk](mailto:valpritchard@furthermaths.org.uk)

Students should bring writing equipment and a calculator with them.