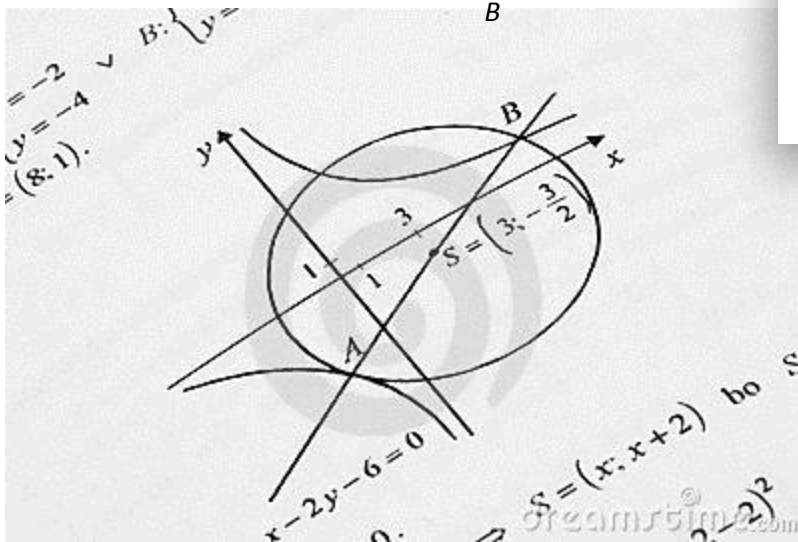
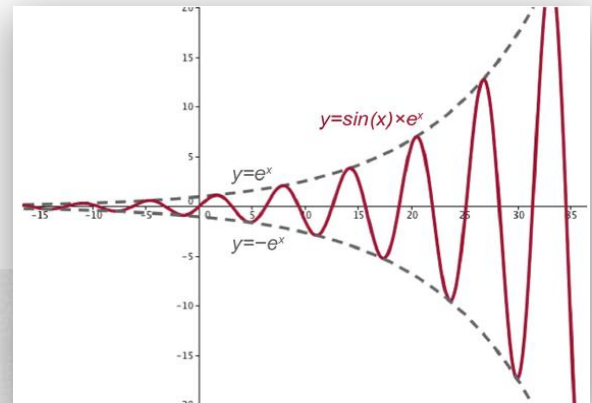
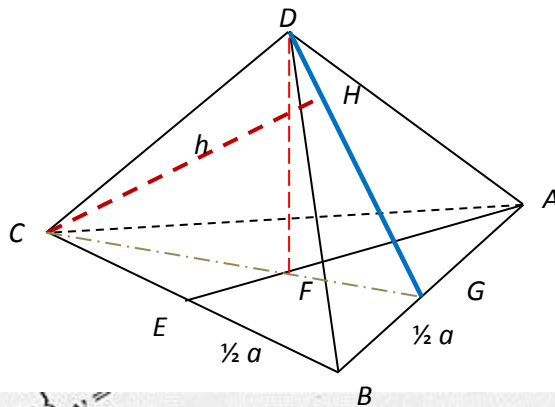




The University Of Sheffield.

# SCHOOL OF MATHEMATICS AND STATISTICS (SoMaS)



## STEP PREPARATION CLASSES AT SoMaS

2014

Mathematics: the engine of science

### Course aims and description:

This course will provide a systematic introduction to the advanced problem solving skills required for STEP examinations.

*The course will be useful for prospective STEP or AEA candidates .*

Classes will be delivered by SoMaS staff who have prior experience in STEP preparation. The course will focus on pure mathematics and introduce additional material required for the STEP examinations. There will be 12 sessions. The last 4 sessions will deal with STEP 3 material.

During each class some time will be taken up teaching new material and exemplifying problem solving techniques, but students will spend far more time solving STEP level problems\* in groups under the supervision of SoMaS staff. A set of problems will be given after each class for students to attempt. In the following class students hand in their responses for feedback from SoMaS staff.

### Course fees:

The course is *free* for all students. The only entry requirement is *commitment*: each student who enrolls de facto agrees to attend each class and engage with problem solving in and outside of each class.

To book a place on this course or for further enquiries contact:  
[D.Almeida@sheffield.ac.uk](mailto:D.Almeida@sheffield.ac.uk)

### Course schedule

Date/time	Venue	Session
Feb 6: 4.30 – 6.30 pm	Hicks	Proof
Feb 13: 4.30 – 6.30 pm	Hicks	Calculus
Feb 20: 4.30 – 6.30 pm	Hicks	Coordinate Geometry and curve sketching
Feb 27: 4.30 – 6.30 pm	Hicks	Inequalities
Mar 6: 4.30 – 6.30 pm	Hicks	Trigonometry
Mar 13: 4.30 – 6.30 pm	Hicks	Vectors
Mar 20: 4.30 – 6.30 pm	Hicks	Division by zero
Mar 27: 4.30 – 6.30 pm	Hicks	Numbers, sequences and series
April 3: 4.30 – 6.30 pm	Hicks	Proof for STEP3
April 10: 4.30 – 6.30 pm	Hicks	Hyperbolic functions: STEP 3
May 1: 4.30 – 6.30 pm	Hicks	Differential equations: STEP 3
May 8: 4.30 – 6.30 pm	Hicks	Complex numbers and polar coordinates: STEP 3