

Live Online Professional Development in Mathematics

A range of courses to enable teachers to teach A level Mathematics and A level Further Mathematics with confidence.

A modern approach to professional development; rather than attending a one or two day course, delegates meet weekly for live, interactive online sessions with a tutor and a small group of teachers.

These courses focus on developing subject knowledge and discussing approaches to teaching.

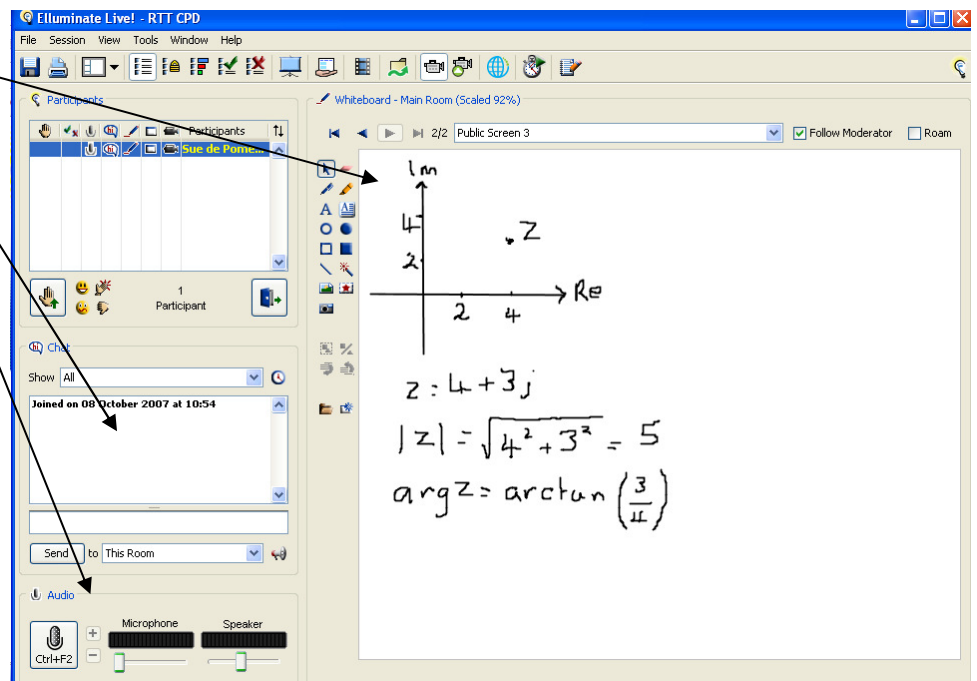
How does the live online tutoring work?

We use a web-based facility which is easy to use and allows a tutor and delegates to communicate live online using audio, handwriting on a shared virtual whiteboard and instant messaging via the internet.

- Shared whiteboard
- Instant messaging
- Audio conferencing
- Application sharing



Headsets are readily available to purchase on the high street or from online retailers for about £5



The screenshot shows the Elluminate Live! interface. On the left, there's a 'Participants' list with one participant, 'Sue de Pomer'. Below that is a chat window showing a message: 'Joined on 08 October 2007 at 10:54'. At the bottom left, there are audio controls for 'Microphone' and 'Speaker'. The main area is a whiteboard titled 'Whiteboard - Main Room (Scaled 92%)'. It displays a complex plane with a horizontal axis labeled 'Re' and a vertical axis labeled 'Im'. A point 'z' is marked at (4, 3). Below the diagram, the following calculations are written:

$$z = 4 + 3j$$

$$|z| = \sqrt{4^2 + 3^2} = 5$$

$$\arg z = \arctan\left(\frac{3}{4}\right)$$

What you need to participate

- A broadband internet connection
- A recent version of Java (free to download)
- A headset for communication

Spring 2012

Using Autograph to enhance teaching & learning in A level Mathematics

Cost £85

Deadline for applications: **Monday 16th April 2012**

Course Content:

The course will focus on integrating the use of Autograph into the teaching and learning of mathematics at A level:

- Teaching suggestions for AS Core, A2 Core and Statistics.
- Ideas for both teacher-centred and student-centred ICT.
- There will be an opportunity to focus on specific aspects of content at delegates' request in later sessions.

Course Tutor: Tom Button

DATE	TIME	TOPIC	PEDAGOGY	TECHNIQUES
Thu 26 th April	16.30 – 17.00	<i>Introduction to the online classroom</i>	<i>This is an opportunity for teachers to familiarise themselves with the online classroom and check their connection</i>	
Thu 3 rd May	16.30 – 17.30	AS Core: Coordinate geometry and algebra	Classroom display tools	Dynamic graphing, the Constant Controller, dynamic text
Thu 10 th May	16.30 – 17.30	AS Core: Differentiation/integration	Student-centred tasks	Status bar/box, gradient/area functions
Thu 17 th May	16.30 – 17.30	Statistics	Using real data, selecting diagrams	Using 1D statistics pages, importing data
Thu 24 th May	16.30 – 17.30	A2 Core: Logarithms, exponentials, trigonometry	IWB use, Effective questioning	Whiteboard view, Scribble tool, slow plot, functions
Thu 31 st May	16.30 – 17.30	A2 Core: Vectors	Advanced classroom display tools	Vectors, 3D view

Delegates will be able to view and interact with a shared Autograph screen in the online classroom during the sessions. Delegates who do not currently have a copy of Autograph can download a trial version from <http://www.autograph-math.com/>

Similar courses based on the same content are also available for Geogebra and TI-Nspire.

Further information and an application form:

http://www.furthermaths.org.uk/teacher_area/rpd.php

Enquiries: LOPD@furthermaths.org.uk