



# Live, On-line Professional Development in Mathematics

## Matrices

### Information for applicants

A modern approach to professional development. These courses will focus on subject knowledge and will cover common ground from all current specifications. Rather than attending a one or two day course away from school/college, delegates will use the software **Elluminate** to meet on-line for with a tutor and a small group of teachers on a weekly basis.

**The course content covers topics from the AQA, MEI, OCR and Edexcel specifications**

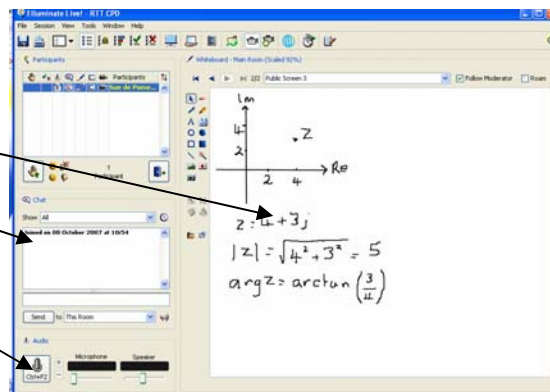
#### What is Elluminate?

Elluminate allows a tutor and delegates to communicate live on-line using audio, handwriting on a shared virtual whiteboard and instant messaging via the internet.

Elluminate is a well established web-based package which is easy to use and has features that make it ideal for live mathematics tutoring.

These features include:

- Shared whiteboard
- Instant messaging
- Audio conferencing
- Application sharing
- A graphical calculator



#### All participants need

- a broadband internet connection
- a recent version of Java installed on their computer.
- A graphics tablet and headset



#### All participants will receive

- Roughly five hours of Elluminate tutorials
- A course handbook
- Online resources access for the module being studied
- Email support from a course tutor

#### For Optional Certification

If participants wish to receive a certificate at the end of the course they will be required to submit a resource that can be used for teaching a topic from the module.



## April 2009 – Matrices for A2 Further Mathematics

**Cost £70**

**Monday 20<sup>th</sup> April 2009:** Deadline for applications:

**Tutors:** Sue de Pomerai, Dick Russell

### Course Structure

The course will consist of

- One session giving an introduction to Elluminate and the on-line resources
- Four 60 - 90 minute sessions

### Key Dates

DATE	TIME	TOPIC	TUTOR
Tuesday 21 <sup>st</sup> April	16.30 - 1700	Introduction to Elluminate	
	1700 - 18.00	Determinant and inverse of a singular 2X2 matrix Determinant and inverse of a 3X3 matrix Matrix transformations in 2 and 3 dimensions Geometric significance of determinant	Sue de Pomerai
Tuesday 28 <sup>th</sup> April	16.30 – 18.00	Characteristic equation of a matrix Eigenvalues and eigenvectors of 2X2 and 3X3 matrices	Dick Russell
Tuesday 5 <sup>th</sup> May	16.30 – 18.00	Transpose of a matrix Orthogonal matrices Diagonalisation and powers of 2X2 and 3X3 matrices	Sue de Pomerai
Tuesday 19 <sup>th</sup> May	16.30 – 18.00	Solution of simultaneous equations Geometric interpretation of these solutions The Cayley-Hamilton Theorem	Sue de Pomerai

If you have any further queries please contact Sue de Pomerai ([sue.depomerai@mei.org.uk](mailto:sue.depomerai@mei.org.uk))

Please send application forms to Valerie Algar ([valeriealgar@fmnetwork.org.uk](mailto:valeriealgar@fmnetwork.org.uk))