

Introduction to the Online Resources

The MEI Online resources provide materials to support the study of A-Level Maths and Further Maths and the Additional Maths FSMQ. They have been designed for use by students and teachers in schools and colleges and also for students studying through the Further Mathematics Network (www.fmnetwork.org.uk).

Using the resources

Student resources

Once logged-in users see a list of the modules they have access to. Each module's resources have a chapter structure, which mirrors a textbook.

In addition to this the Pure Mathematics Core resources are also accessible in a form based on the latest QCA GCE Mathematics Core, so that they are easy to use for schools/colleges to support any of the awarding body A/AS Mathematics specifications. Resources are also available to support FP1 across the other specifications and over the next academic year resources will become available for FP2, D1/2 and M1/2 across the other specifications.

Chapters

Each chapter has its resources divided into sections (between 1 and 5, depending on the module and chapter). These sections have a common structure and are designed to be mathematically coherent chunks of work. They are not intended necessarily to take equal amounts of time or effort; they just break the work in each chapter into manageable sections.

In addition to this each chapter has:

- A **Chapter Assessment**, made up of exam standard questions covering the material addressed by the chapter. Students should treat these as open-book exams and aim to score at least 80%. This is work that students would typically hand to their tutors to gain feedback.
- A **Glossary**, which gives definitions of the mathematical terms used in the chapter, in the context of the work covered.

Sections

Each section has some or all of the following elements:

- Resources
- Interactive Resources
- Active learning resources
- Hints and Solution
- Section Test

Resources

A **Study plan**, which gives some background and introduction to the mathematics covered in the section. It details what reading should be done from the textbook and where/how the supplementary notes and other section resources could be used. It also suggests questions to attempt from the textbook exercises covered in the section.

Notes and examples expand on textbook examples and often give extra explanations, tips and examples. Sometimes they also include extension material.

A **Crucial points** section, which lists the common mistakes students make with the mathematics covered in the section and explains why they are wrong.

Many sections also feature **Additional exercises** of questions not featured in any textbooks.

Interactive resources

A variety of **Interactive Resources** such as Flash IWB material, interactive questions for students, PowerPoint presentations, spreadsheets and hyperlinks.

Active Learning resources

The **Active Learning Resources** are based on the Standards Unit: Improving learning in mathematics materials

Hints and solutions

These are available for the additional exercises and also specified questions in the MEI textbooks. These solutions provide more help than the answers as they are presented in the back of the textbooks. Each question specified in a section has a fully worked solution and many questions also have hints. There are up to three levels of hint per question. The worked solutions are also useful to show students how to set out clear answers to mathematical questions. Usually they are hand-written, so they show students directly what is expected of their own solutions.

Section Tests

A Multiple Choice test, which covers all of the mathematics students should have learned in the section. Each test has 10 questions with options A, B, C, D & E (where E is "I don't know"). Students score 3 marks for a correct answer, 1 for "I don't know" and 0 for guessing. The pass mark is 23/30. Distracters (the wrong answers) are chosen, where possible, to anticipate the errors students are likely to make. This means the tests are very useful for diagnostic purposes.

They should be printed from the web site and worked out on paper. Students' choices are entered onto a form accessed from the section page on the web site. This allows immediate feedback on their score, which questions were answered incorrectly and worked solutions (only if the pass mark is achieved). If a student fails a test twice, she/he cannot re-take it unless their tutor enables them to.

Each time a test is taken the responses and score are written to the student's record on a database, which can be accessed by their tutor. Students can access their own test records from a link in the bottom bar of any page in the module web resources.

Teacher resources

Logging on as a teacher/tutor gives you access to additional resources:

Chapter assessments are available in pdf format (with solutions) or word format (questions only).

Section tests are available in pdf format with full worked solutions.

Many extra **Active learning resources** that are not included in the student resources are available.

Student Record System

Teachers/Tutors can access their students' records on the database. This records the scores students have achieved on the section tests and also their individual responses to each question. Tutors can also enter assessment scores and comments onto their students' records.

The messaging facility allows all the students from an institution, all the students from a particular class or individual students to be messaged.

Subscribing to the resources

The basic rate for access to the online resources for 2006/07 will be £250. This will include access to the teachers' resources, the student record system and 20 (not 10 as stated in the newsletter) student passwords. This payment will also include MEI membership and represents a saving on the current position of paying for access to the resources and membership separately; membership without access to the resources will cost £80.

The price for centres needing more student passwords is as follows:

Student Passwords	Staff Passwords	Cost (£)
*20	2	250
35	3	280
50	4	310
75	5	370
100	6	430
125	7	490
150	8	550
175	9	610
200	10	670

*Basic subscription including MEI membership.

Centres with more than 200 students can purchase additional student passwords at a cost of £60 per batch of 50 students passwords + 2 staff passwords. e.g. Access for up to 350 students and 16 staff would cost £850.