

Virtual Revision Conferences 2006 'In-house'

Why travel?
It's 'in-house'

AS/A2 Mathematics Designed especially for Edexcel students

- featuring Senior Examiners
- hold in your school or college
- no need to travel for a revision conference

Please click page selector
on the toolbar above to visit pages
and print.
New courses added all the time



Page

1	Index
2/3	AS (C1 + C2 + S1 + M1) course code VR41
4/5	A2 (C3 + C4 + M1 + S1) course code VR42- combination 1
6/7	A2 (C3 + C4 + M2 + S2) course code VR43 – combination 2
8	AS/ A2 – selection - course code VR48- your combination

Please click on page toolbar above to book online / by post/ by fax or by phone to 01692 582565

Book Online- fax 01692 582770 or tel 01692 582565

Mathematics (AS) for Edexcel students

Virtual Revision Conference (VR41)

with **Greg Attwood, Senior Examiner**

“You have completed the AS course and are starting your revision. What are the key points to focus on? What are the examiners looking for? Are there any typical errors you should avoid?”

These courses are designed and presented by a senior examiner who, as an experienced teacher can help you to focus your revision on the key areas that matter”

The Programme (C1 + C2 + S1 + M1)

Each session includes teaching and workshop periods with handouts

Session 1: Core Maths 1.1 Algebra and Functions

The AS course puts great demands on pupil's algebra and many students move from GCSE with weaknesses in this area. This lecture covers the work on Indices and surds, quadratics, equations and inequalities and helps them see the requirements of C1.

Session 2: Core Maths 1.2 Lines, Curves and Sequences

The coordinate geometry of straight lines builds on the $y = mx + c$ equation met in GCSE. The sketching of basic curves is examined and extended to include more complicated forms through the use of simple transformations. The patterns and principles of arithmetic series are explored.

Session 3: C1.3 Introduction to Calculus.

Calculus is perhaps the most important tool for the mathematician. In C1 the basic ideas are met and applied to simple polynomial functions. Examples using calculus to find equations of tangents and normals will be studied.

Session 4: C2.1 Algebra, Trigonometry and Logarithms.

Algebraic skills need developing to deal with division of polynomials and after the basic trigonometry of right angled triangles is extended using the sine and cosine rules the concept of radians is introduced. Students often find logarithms one of the most difficult ideas to grasp. We shall revise the important points and steer a clear path through this important topic.

Session 5: C2.2 Circles and Series

The coordinate geometry of straight lines in C1 is extended to deal with circles and links are made to circle theorems from GCSE. Different styles of questions using the binomial expansion will be examined and the key ideas from geometric series highlighted.

Session 6: C2.3 Calculus and trigonometry.

Some fundamental relationships between the 3 trigonometric functions are met in C2 and these can be applied in a number of ways to solving trig equations. The calculus tools met in C1 are applied to find turning points and areas under curves and questions to illustrate this will be studied

**Book - no obligation-
by January 31-
10% discount**



Greg Attwood

Greg Attwood has over 25 years experience of teaching AS and A2 mathematics. He has co-authored textbooks in the *Heinemann* series on Statistics and Core Mathematics and is well known as a provider of INSET and revision courses for sixth formers. He is Chief Examiner in Statistics and Principal Examiner in Pure Mathematics .

The Course

The course will highlight the key points for a student's revision and illustrate these with examples of examination style questions.

The workshops give the students a chance to try some specially prepared questions and these are analyzed in detail in the sessions.

AS Mathematics Virtual Revision- continued

(C1 + C2 + S1 + M1)

Session 7: S1.1 Data presentation

Raw data comes in a variety of forms and a first stage to analyzing it is to summarize the information diagrammatically and calculate some simple statistics such as mean, median, interquartile range or standard deviation.

Session 8: S1.2 Probability and Probability Distributions

The rules for combining probabilities are simple but they need careful application. A discrete probability distribution provides a simple model for some experiments. The techniques for analyzing probability distributions are revised and examples of typical questions will be studied.

Session 9: S1.3 Correlation. Regression and the Normal Distribution.

Bivariate data requires a slightly different approach and the basic techniques for dealing with this are revised. The normal distribution is central to further study of statistics and the basic methods are revised here. The impact and appropriate use of calculators will be discussed.

Session 10: M1.1 Simple models and fundamental techniques.

The constant acceleration model can be applied to a variety of problems and we shall examine some typical questions. The resolving of forces is a fundamental technique in M1 and this will be revised and its connection with vectors examined.

Session 11: M1.2 Newton's 2nd law and friction

Newton's second law has had a profound impact on the study of mechanics and there is a rich variety of problems that can be examined in M1. We shall look at the key points and see how simple models can be refined by the incorporation of friction.

Session 12: M1.3 Moments and momentum.

Simple direct impacts can be analysed using the principles of conservation of momentum. Examples of this and the application of the principle of moments will be examined.

**Book - no obligation-
by January 31-
10% discount**

Book Online- fax 01692 582770 or tel 01692 582565

Mathematics (A2) for Edexcel students

Virtual Revision Conference (VR42)- combination 1

with **Greg Attwood, Senior Examiner**

“You have completed the A2 course and are starting your revision. What are the key points to focus on? What are the examiners looking for? Are there any typical errors you should avoid? These courses are designed and presented by a senior examiner who, as an experienced teacher can help you to focus your revision on the key areas that matter”

The Programme (C3 + C4 + S1 + M1)

Each session includes teaching and workshop periods with handouts

C3.1 Algebra and functions.

A more formal approach to functions is developed in C3 and we shall outline the key terms and ideas. The modulus function is introduced and this, combined with the transformations from C1, opens the door to a wide variety of functions that can be sketched and analysed.

C3.2 Trigonometry and Logarithms

The exponential and natural log functions are introduced along with 3 extra trigonometric functions. There are many trigonometric formulae to learn and others to use in C3, we shall steer a clear path through this important topic.

C3.3 Roots of equations and Differentiation

The technique of using iterative procedures to solve equations is explored and the vital topic of differentiation is examined. New rules and new results must be learnt and then applied in different combinations that at first sight look daunting. We shall show how to remove the mystic and approach these problems confidently.

C4.1 Algebra and Parametric Equations

After a quick look at partial fractions we shall examine some problems connected with parametric equations. The binomial expansion is revisited and extended and the new style of questions explored.

C4.2 Vectors and differentiation

The chain rule from C3 is used to find gradients of curves given in parametric form and some examples will be studied. The concept of vectors is introduced in C4 and we shall explore how this topic is examined.

C4.3 Integration

There are new results and techniques to be mastered but some of the applications should be familiar. Ideas of areas under curves are extended to volumes and simple techniques for solving differential equations are met. A systematic approach to tackling integration will be developed to help answer that question “where do I start?”

**Book - no obligation-
by January 31-
10% discount**



Greg Attwood

Greg Attwood has over 25 years experience of teaching AS and A2 mathematics. He has co-authored textbooks in the *Heinemann* series on Statistics and Core Mathematics and is well known as a provider of INSET and revision courses for sixth formers. He is Chief Examiner in Statistics and Principal Examiner in Pure Mathematics .

The Course

The course will highlight the key points for a student's revision and illustrate these with examples of examination style questions. The workshops give the students a chance to try some specially prepared questions and these are analyzed in detail in the sessions.

AS Mathematics Virtual Revision- continued

(C3 + C4 + S1 + M1)

S1.1 Data presentation

Raw data comes in a variety of forms and a first stage to analyzing it is to summarize the information diagrammatically and calculate some simple statistics such as mean, median, interquartile range or standard deviation.

S1.2 Probability and Probability Distributions

The rules for combining probabilities are simple but they need careful application. A discrete probability distribution provides a simple model for some experiments. The techniques for analyzing probability distributions are revised and examples of typical questions will be studied.

S1.3 Correlation. Regression and the Normal Distribution.

Bivariate data requires a slightly different approach and the basic techniques for dealing with this are revised. The normal distribution is central to further study of statistics and the basic methods are revised here. The impact and appropriate use of calculators will be discussed.

M1.1 Simple models and fundamental techniques.

The constant acceleration model can be applied to a variety of problems and we shall examine some typical questions. The resolving of forces is a fundamental technique in M1 and this will be revised and its connection with vectors examined.

M1.2 Newton's 2nd law and friction

Newton's second law has had a profound impact on the study of mechanics and there is a rich variety of problems that can be examined in M1. We shall look at the key points and see how simple models can be refined by the incorporation of friction.

M1.3 Moments and momentum.

Simple direct impacts can be analysed using the principles of conservation of momentum. Examples of this and the application of the principle of moments will be examined.

**Book - no obligation-
by January 31-
10% discount**

Book Online- fax 01692 582770 or tel 01692 582565

Mathematics (A2) for Edexcel students

Virtual Revision Conference (VR43) - combination 2

with **Greg Attwood, Senior Examiner**

“You have completed the A2 course and are starting your revision. What are the key points to focus on? What are the examiners looking for? Are there any typical errors you should avoid? These courses are designed and presented by a senior examiner who, as an experienced teacher can help you to focus your revision on the key areas that matter”

The Programme (C3 + C4 + S2 + M2)

Each session includes teaching and workshop periods with handouts

C3.1 Algebra and functions.

A more formal approach to functions is developed in C3 and we shall outline the key terms and ideas. The modulus function is introduced and this, combined with the transformations from C1, opens the door to a wide variety of functions that can be sketched and analysed.

C3.2 Trigonometry and Logarithms

The exponential and natural log functions are introduced along with 3 extra trigonometric functions. There are many trigonometric formulae to learn and others to use in C3, we shall steer a clear path through this important topic.

C3.3 Roots of equations and Differentiation

The technique of using iterative procedures to solve equations is explored and the vital topic of differentiation is examined. New rules and new results must be learnt and then applied in different combinations that at first sight look daunting. We shall show how to remove the mystic and approach these problems confidently.

C4.1 Algebra and Parametric Equations

After a quick look at partial fractions we shall examine some problems connected with parametric equations. The binomial expansion is revisited and extended and the new style of questions explored.

C4.2 Vectors and differentiation

The chain rule from C3 is used to find gradients of curves given in parametric form and some examples will be studied. The concept of vectors is introduced in C4 and we shall explore how this topic is examined.

C4.3 Integration

There are new results and techniques to be mastered but some of the applications should be familiar. Ideas of areas under curves are extended to volumes and simple techniques for solving differential equations are met. A systematic approach to tackling integration will be developed to help answer that question “where do I start?”

**Book - no obligation-
by January 31-
10% discount**



Greg Attwood

Greg Attwood has over 25 years experience of teaching AS and A2 mathematics. He has co-authored textbooks in the *Heinemann* series on Statistics and Core Mathematics and is well known as a provider of INSET and revision courses for sixth formers. He is Chief Examiner in Statistics and Principal Examiner in Pure Mathematics .

The Course

The course will highlight the key points for a student's revision and illustrate these with examples of examination style questions. The workshops give the students a chance to try some specially prepared questions and these are analyzed in detail in the sessions.

A2 Mathematics Virtual Revision- continued

(C3 + C4 + S2 + M2)

S2.1 Binomial and Poisson Distributions.

Careful attention to language is required when using these discrete distributions and a familiarity with the tables is highly recommended. Some typical questions will be studied and the use of approximations examined.

S2.2 Continuous Distributions

This topic builds on work covered in S1 and the links will be highlighted. Confusion sometimes arises between pdfs and cdfs and we shall aim to overcome this difficulty by looking at some examples of these longer S2 questions.

S2.3 Hypothesis Testing

This is a key idea in the study of statistics and we shall examine some simple parallels to help master this important principle. Some typical examination questions will then be analysed.

M2.1 Kinematics in 1 and 2 Dimensions

The constant acceleration model met in M1 is extended to deal with projectiles here and further refinements are made as variable acceleration problems are considered. The level of calculus required is low and we shall show that, once the principles have been grasped, questions on these topics are very accessible.

M2.2 Centres of Mass and equilibrium

The principle of moments met in M1 is extended to deal with composite laminas. we shall endeavour to show how a clear and careful approach can make these problems appear less daunting.

M2.3 Work, energy, power and collisions

Some new quantities are introduced and the connections between them are important to grasp. We shall look at some typical examples and also see how Newton's law of impact opens up a wider range of problems concerning collisions – diagrams are essential!

Book - no obligation-
by January 31-
10% discount

Book Online- fax 01692 582770 or tel 01692 582565

Mathematics (AS or A2) – You choose!

Virtual Revision Conference (VR48) - your combination

with **Greg Attwood, Senior Examiner**

“You have completed your course and are starting your revision. What are the key points to focus on? What are the examiners looking for? Are there any typical errors you should avoid?”

These courses are designed and presented by a senior examiner who, as an experienced teacher can help you to focus your revision on the key areas that matter”.

Choose your own revision programme.

You can choose any four of the groups from the group list below for your special programme.

Group List

C1

C2

C3

C4

M1

M2

S1

S2

If you choose this option please quote VR48 on your booking form and state up to 4 groups from the list.

Book - no obligation -
by January 31 -
10% discount



Greg Attwood

Greg Attwood has over 25 years experience of teaching AS and A2 mathematics. He has co-authored textbooks in the *Heinemann* series on Statistics and Core Mathematics and is well known as a provider of INSET and revision courses for sixth formers. He is Chief Examiner in Statistics and Principal Examiner in Pure Mathematics .

Book Online- fax 01692 582770- tel 01692 582565