

# A Level Maths Introduction

# A Level Mathematics

## THE COURSE

- You will have a total of nine lessons each fortnight shared between two (or three) teachers.
- You will be studying for the Edexcel exam board.
- No coursework – 100% examination.
- There are three examinations at the end of the course (*you can use a scientific calculator or graphics calculator in all three!*)
  - At the end of Year 13 each exam is 2 hrs:
    - Pure Maths Exam Paper 1
    - Pure Maths Exam Paper 2
    - Mechanics and Statistics Exam Paper 3

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## **YEAR 11 TO YEAR 12 TRANSITION**

- In the Year 11 Transition Resources Maths folder, you will find the following:
  - This file!
  - Yr11-12 Maths Transition Booklet – this contains practise for all the basic skills you will require from Day 1 of the course.
  - Extension Tasks folder – this contains extra practise that will help you to develop your problem solving skills.

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## **A LEVEL TARGET GRADES**

Target grades are set using your average GCSE point score. These are the most common target grades for our students:

- Grade 6 in Maths at GCSE – Target Grade C
- Grade 7/8 in Maths at GCSE – Target Grade B
- Grade 8/9 in Maths at GCSE – Target Grade A

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## EXPECTATIONS

- You will be expected to keep your lesson notes, examples and homeworks/tests organised in a folder with dividers. You may use an exercise book for lesson notes if you prefer.
- You will be set weekly homework by each teacher.
- You will be expected to practise techniques learnt in class. As a rule of thumb, you should expect to do **at least** one hour of work out of class for every hour in class.
- We will also be using the excellent online Integral learning platform, which will let you extend and reinforce your understanding through independent study. You will be given a username and password for Integral at the beginning of the year.

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## **BASIC SKILLS TEST**

- The minimum requirement of a grade 6 in Maths at Higher Tier GCSE means that there are a number of essential basic skills that you will require from the very start of the course.

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## **BASIC SKILLS TEST**

- There will be a basic skills test within the first two weeks of the autumn term.
- You are expected to use a calculator on the test.
- The pass mark will be 85%.
- You will have to resit if necessary.
- There is practise for all the topics covered in the “Year 11 to Year 12 Maths Transition Booklet”

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## **BASIC SKILLS TEST**

Topics to be tested:

- Substitution (including negatives, fractions and BIDMAS)
- Algebraic Expressions
  - Multiply/expand single and double brackets
  - Factorise single brackets
  - Factorise double brackets (with single  $x^2$  or a prime multiple eg  $3x^2$ )
  - Simplify powers/indices



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## **BASIC SKILLS TEST**

Topics to be tested:

- **Rearranging Formulae** (where subject only appears once)
- **Equations** (with  $x$  on both sides, brackets and fractions inc algebraic)
- **Inequalities**
- **Graphs**
  - Straight line graphs including  $y = mx + c$
  - Quadratic graphs

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## **BASIC SKILLS SUPPORT SESSIONS**

- There will be basic skills support sessions after school on Thursday for the first two weeks.

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## BOOKS AND EQUIPMENT

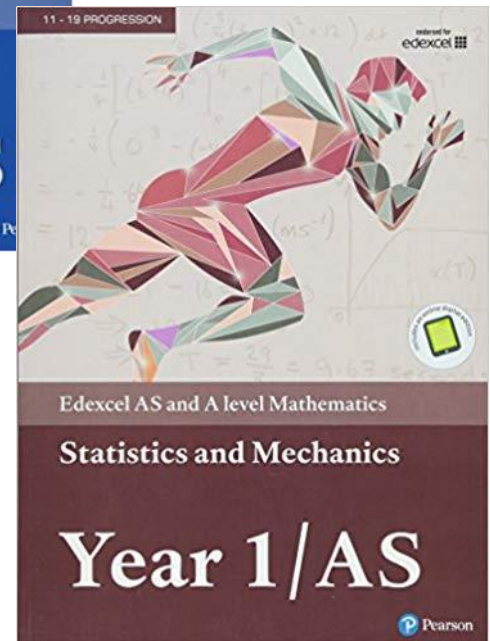
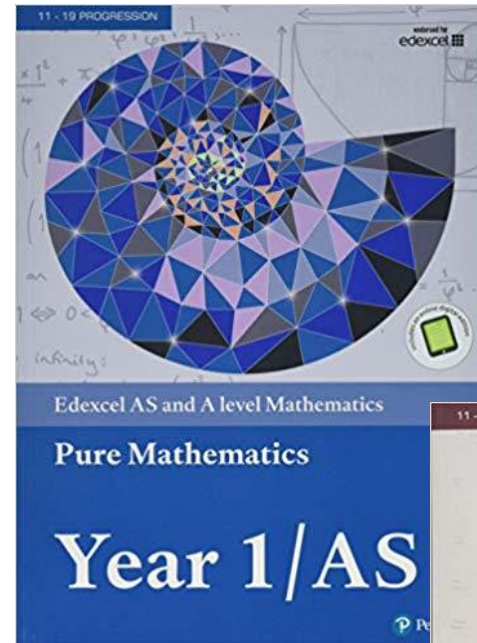
The textbooks you require for Year 12 are published by Pearson Education.

Year 1/AS Pure  
(about £18)

ISBN:978-1292183398

Year 1/AS Stats and Mech  
(about £10)

ISBN:978-1292183398



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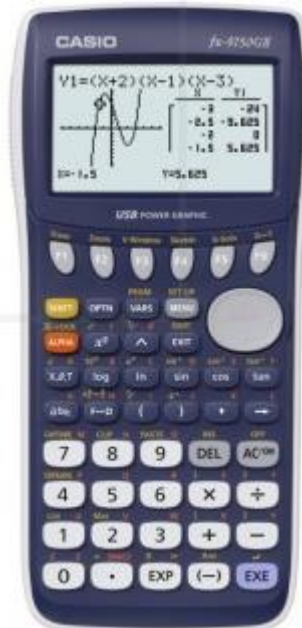
## BOOKS AND EQUIPMENT

- A scientific calculator for the **new specification** is essential.
- A graphical calculator can also be very useful!



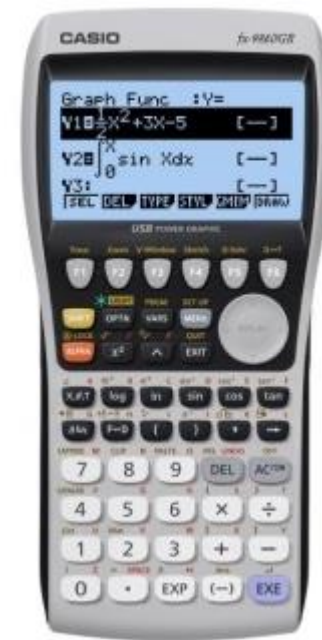
*Scientific*

Casio fx-991EX Classwiz  
(around £25 from Amazon)



*Graphical*

Casio fx-9750II  
(around £60)



*Graphical*

Casio fx-9860II  
(around £80)