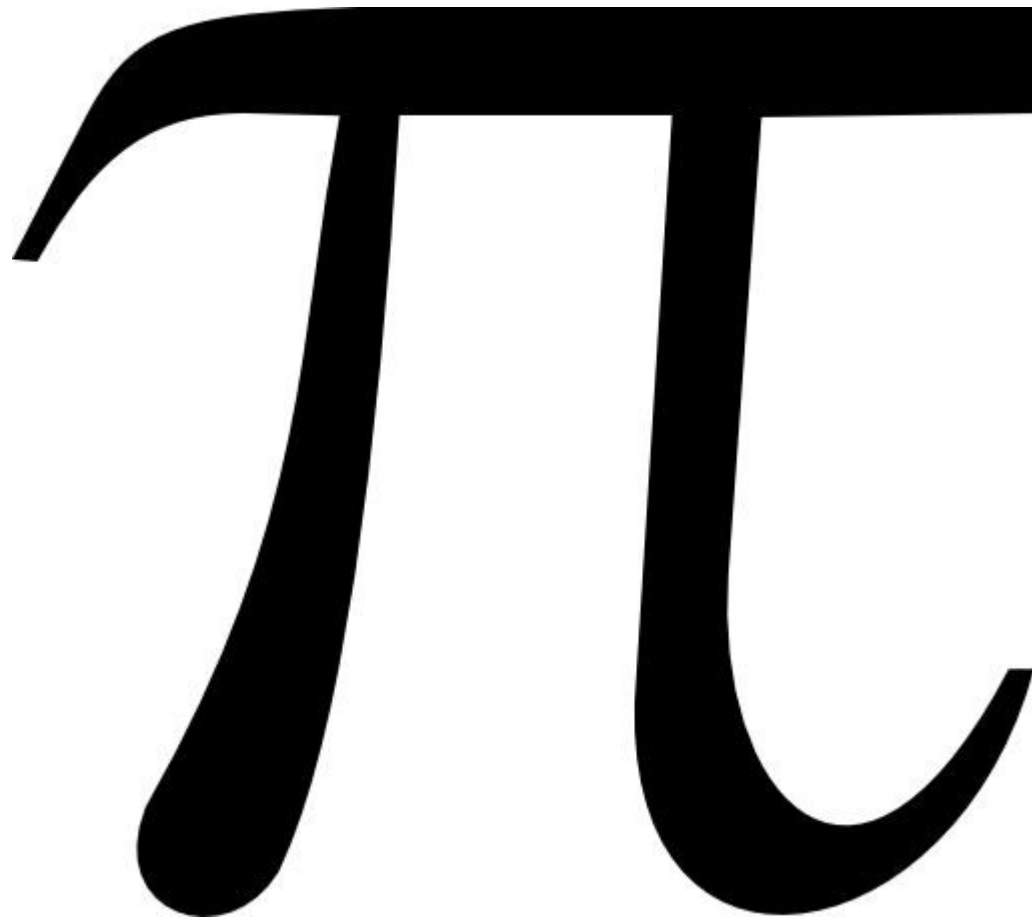


# **GCE Advanced Level Mathematics**



# GCE Advanced Level Mathematics

## Description:

The aims and objectives of the AQA Advanced GCE Mathematics are to enable students to:

- Understand and create Mathematical arguments.
- Understand and use Mathematical language accurately.
- Understand and use Mathematical proof.
- Use Mathematical modelling on real life scenarios.
- Have a firm understanding of how pure maths links with mechanics.
- Have a firm understanding of how pure maths links with statistics.

Students are introduced to:

- Proof; Algebra and Functions; Coordinate Geometry; Sequences and Series; Trigonometry; Exponentials and Logarithms; Differentiation; Integration; Numerical Methods.
- Vectors; Quantities and units in Mechanics; Kinematics; Forces and Newton's Laws; Moments.
- Statistical Sampling; Data Presentation and Interpretation; Probability; Statistical Distributions; Statistical Hypothesis Testing.

## Career paths:

A qualification in A-Level Mathematics provides students with the opportunity to study many higher education courses and to embark on many different career paths. These include:

- Accounting
- Business
- Scientific research
- Medicine
- Teaching
- Construction
- Engineering
- IT

## Entry Requirements:

5 or more GCSE subjects at grade 5+ including English and grade 7 or higher in Mathematics. A graphical calculator must be purchased by each student wishing to study A-Level Mathematics.

## Course details & Assessment:

During the 2 year course, students will study a mixture of pure, mechanical and statistical Mathematics.

### Paper 1, Pure Mathematics:

- Written exam
- 2 hours long
- 33⅓% of A-Level

### Paper 2, Pure and Mechanics:

- Written exam
- 2 hours long
- 33⅓% of A-Level

### Paper 3, Pure and Statistics:

- Written exam
- 2 hours long
- 33⅓% of A-Level



For more information about A-Level Mathematics see Mr Boyce  
[Michael.Boyce@miltonkeynesacademy.org.uk](mailto:Michael.Boyce@miltonkeynesacademy.org.uk)