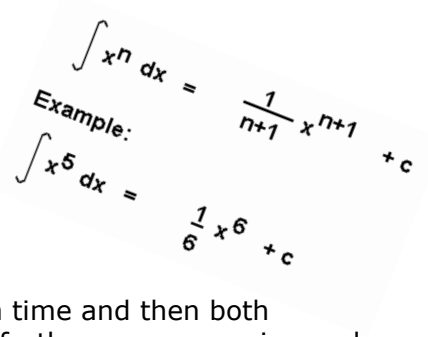
MATHEMATICS
Year 12 Curriculum



In A level Maths you study Pure Mathematics for 2/3 of your curriculum time and then both Statistics and Mechanics for 1/6 of the time each. You need to develop further your reasoning and logic and all the skills that you learnt at GCSE – especially the grade 7/8/9 content as there is much more Maths that is underpinned by this.

You have an A level calculator to use with all aspects of your Mathematics and you study how to use this to maximum efficiency alongside the understanding of all the techniques and processes.

Key aspects of Pure Maths studied:

1. Algebraic Expressions and Methods
2. Polynomial Equations and Inequalities
3. Graphs and Transformations
4. Circle Equations and Geometry
5. Algebraic Proof
6. Binomial Expansion
7. Trigonometry and trigonometric equations
8. Vectors
9. Differentiation
10. Integration
11. Exponentials and Logarithms

In Statistics you will study:

1. Data Collection
2. Measures of Location and spread
3. Representations of Data
4. Correlation
5. Probability
6. Probability Distributions
7. Hypothesis Testing

In Mechanics you will study:

1. Modelling in Mechanics
2. Constant acceleration
3. Forces and motion
4. Variable acceleration

As usual, there will be Maths tests spread throughout year - so that you get a chance to check your understanding and success without the prompts of your notes / classmates / teachers. You need to ensure that you are building up the skills successfully throughout the 2 year course to gain your maximum achievement.
Towards the end of Year 12, students sit similar exams to the AS external qualification as a summative assessment to identify how successful they have been with the Year 1 part of the A level course. These also provide an indication of the likely grade that may be achieved in the full A level.

The Classwiz calculator will solve your simultaneous equations, quadratic equations and a whole lot more.
You need this for every lesson – it also holds loads of Statistics and enables you to handle data and probability effectively.

We rarely draw graphs accurately – it's more about using sketch graphs to solve problems.

The text books have the answers in the back – and you are expected to use these sensibly to check your understanding and work through any difficulties/issues