



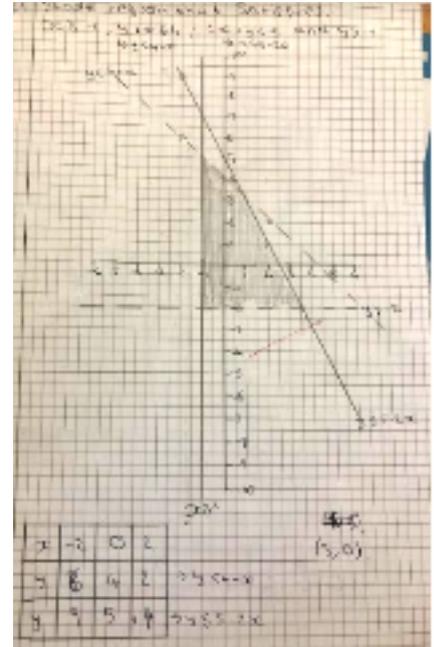
AS Mathematics

Year 12

In Year 12 students will start their AS Mathematics course where they will study Pure Mathematics, Statistics and Mechanics. The course is split into 66% Pure and 33% Applied (Statistics and Mechanics).

During Year 12 they will build on concepts that they learnt in their GCSE, including indices, surds, equations of straight line, quadratics and inequalities. They then go on to be able to sketch different types of functions, find the equation of a circle, dividing polynomials, binomial expansion and vectors.

Throughout the Pure topics they will also begin to expand their knowledge on the applied side of Mathematics. This will include data collection, measures of location and spread, representing data and correlation from Statistics, then modelling in mechanics and acceleration from Mechanics.

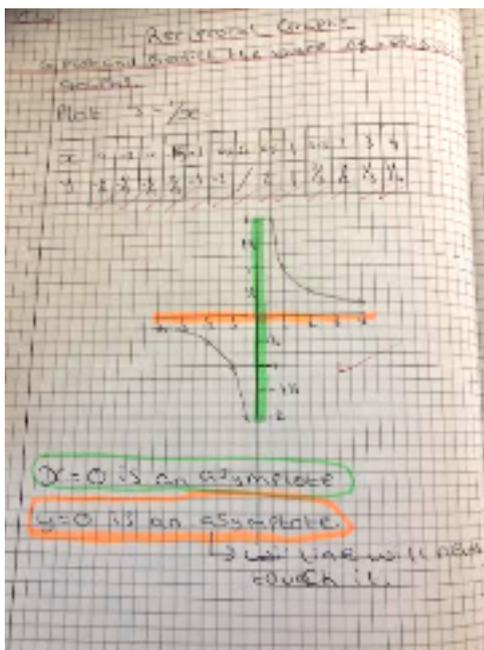


Year 13

In Year 13 students will complete the AS Mathematics course covering Trigonometry, Differentiation, Integration, Exponential and Logarithms from the Pure Mathematics. From the Applied section of the course, they will learn probability, Statistical distributions, hypothesis testing, forces, motion and acceleration.

What are the HW Expectations?

Students will be expected to complete at least 1 hour of homework a week, which will be made from past examination questions and then any additional work on top of this to help with their understanding of the topic.





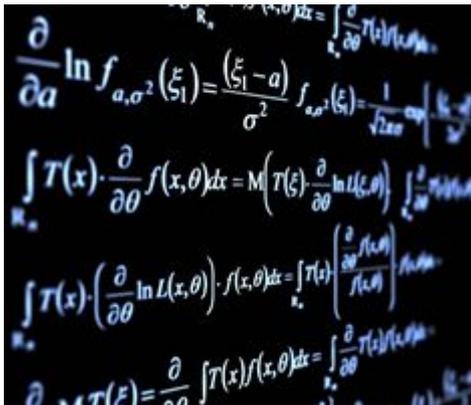
How will I be assessed?

Each term they will be assessed on a cumulative basis to ensure that all topics are revised regularly. The final examination will be at the end of year 13 with a 2 hour pure examination and a 1 hour 15 minutes Applied examination.

What equipment/books do I need to be successful?

Textbooks and logins to all resources are supplied by the Mathematics department for students to work through and revise from. It is recommended that a graphical calculator is used for the AS Level qualification; however, a scientific calculator is required.

What other opportunities exist outside the classroom?



Trigonometry 

1. Find the area of this triangle.

2. Find the perimeter of this triangle.

3. Find the value of y to 1 d.p.

4. Find the value of b to 1 d.p.
