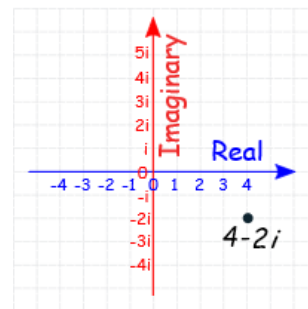
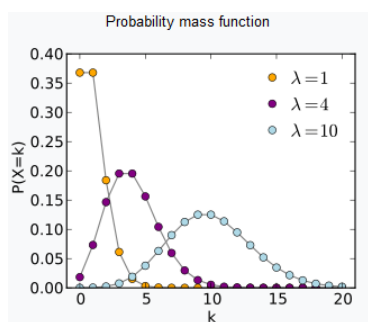


# FURTHER MATHS

## Year 12 Curriculum



**Some people who are very strong mathematicians and enjoy fast paced learning and challenge, choose to study an additional AS or full A level in Further Maths.**

In Year 12 you will study Pure Maths topics of Further Maths for half of your curriculum time and then both Further Statistics and Decision Mathematics for 1/4 of the time each. This will lead to the external AS exam in Further Maths, taken in May of your Year 12. You will need to be confident in Maths, prepared to be organised with all your study time and relish the opportunity to push your learning and understanding further.

**Once you have achieved an AS level in Further Maths, you have the opportunity to continue with the course through the Summer term and into Year 13 so that you complete the full A level in Further Maths at the end of your Year 13.**

*If you are uncertain whether you will be able to cope with this additional challenge, we are very happy that you start the course and then we can chat with you after the first few weeks to help you decide whether this is a good option for you personally.*

### Pure Maths area of study for AS Further Maths:

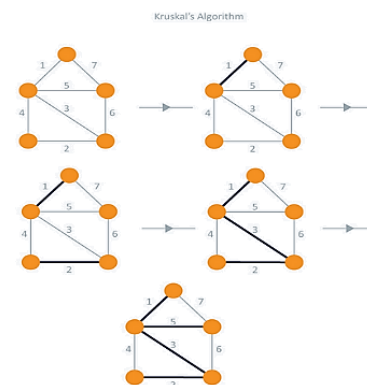
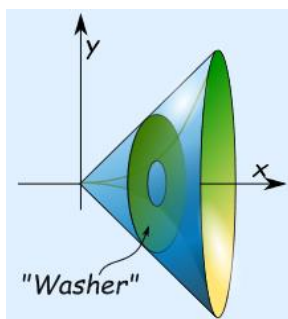
1. Complex Numbers
2. Argand Diagrams
3. Series
4. Roots of Polynomials
5. Volumes of Revolution
6. Matrices
7. Linear Transformations
8. Proof by Induction
9. Further Vectors

### In Decision you will study:

1. Algorithms
2. Graphs and Networks
3. Algorithms on Graphs
4. Route Inspection
5. Linear Programming
6. Critical Path Analysis

### In Statistics you will study:

1. Discrete Random Variables
2. Poisson Distribution
3. Binomial Distribution
4. Chi Squared Testing
5. Hypothesis Testing



The Classwiz calculator will support your learning and has modes to handle complex numbers, vectors and matrices.

All the data that used to be provided in Statistical data is now programmed into these calculators and so this is an essential tool.

The AS May examination has two papers:

- Paper 1: 1h40m Core Pure Mathematics  
 Paper 2: 1h40m Options:  
 Further Statistics and Decision