

Maths A Level

Subject Learning Journey



Algebraic expressions & equations

Surds,
Factorising
Indices
Solving equations,
Discriminant

Graphs and transformations

Cubic, quartic,
reciprocal graphs,
Transforming graphs
Coordinate geometry
Equation of a circle

Algebraic Methods

Factor theorem,
Polynomial division
Proof
Binomial expansion

Statistics 1

Sampling
Large Data set
Averages
Measures of spread
Representing data

Trigonometry

Sine and Cosine rules
Identities
Solving trig equations

Year 12

Statistics 2
Correlation and hypothesis tests

Algebraic methods 2 & Functions

Partial fractions
Proof 2
Functions

Probability 1

Calculating probabilities
Binomial distribution
Hypothesis testing

Exponentials & logs

Exponentials
Laws of logs
Solving equations
Natural logs

Calculus

Differentiation of polynomials
Stationary points
Integration of polynomials
Area under curves

Sequences and series

Arithmetic and Geometric

Year 13

Binomial expansion 2

Probability 2

Conditional probability
Venn diagrams

Mechanics 2

Mechanics 1
Definitions

Trigonometry 2

Radian measure
Reciprocal trig functions
Double angles
Harmonic identities

Mechanics 3

Numerical methods

Iteration and Newton Raphson

A Level Ready!

Parametric equations

Sketching
Converting to cartesian

Calculus 2

Differentiation of further functions
Product, Quotient & chain rule
Parametric
Differentiation
Implicit Differentiation

Calculus 3

Integration of further functions
Integration by parts and substitution,
Trapezium rule
Areas
Differential equations

Probability 3

Normal Distribution