

Sevenoaks School Pre-IB Maths Revision Course

For students choosing Higher Level Maths: Analysis and Approaches or Applications and Interpretations or Standard Level Analysis and Approaches

Day 1

Morning: Algebraic Methods I

Completing the square and its applications

The discriminant of a quadratic and its applications

Further Functions – domain, range, inverse, and graphs

Afternoon: Trigonometry

Circular measure and geometric problems

The equation of a circle

Trigonometric identities

Solving Trigonometric equations

Day 2

Morning: Algebraic Methods II

Algebraic fractions Knowledge Recap

Algebraic Division

The Remainder Theorem

Sketching Cubic's and higher order polynomials

Solving problems with inequalities

Afternoon: Logarithms and Exponentials

The definition of a Logarithm

Exponential and logarithmic graphs

The laws of logarithms

Solving equations using exponentials and logarithms

Day 3

Morning: Algebraic Methods III

Permutations and combinations

Arithmetic and Geometric Progressions

Binomial expansion

Binomial distribution

Afternoon: Calculus

Differentiating polynomials

The chain and product rules for differentiation

Applications of differentiation

The anti-derivative

Integrating polynomials

Applications of integration