

Year 3 IP Advanced Mathematics Course Outline

	Content
1	Algebraic Fractions
1.1	Simplifying Algebraic Fractions
1.2	Solving Algebraic Fractions
2	Polynomials
2.1	Polynomials & Identities
2.2	Long Division involving Polynomials
2.3	Remainder Theorem & Factor Theorem
2.4	Solve Cubic Equations
3	Partial Fractions
3.1	Linear Factors
3.2	Repeated Linear Factors
3.3	Quadratic Factors (cannot be factorised)
3	Functions
3.1	Relations & Functions
3.2	Composite Functions
3.3	Inverse Functions
3.4	Absolute Valued Functions
3.5	Transformation of Graphs
4	Functions
4.1	Relations & Functions
4.2	Composite Functions
4.3	Inverse Functions
4.4	Absolute Value Functions
4.5	Transformations of Graphs
5	Exponentials & Logarithms
5.1	Definitions of Logarithms
5.2	Laws of Logarithms
5.3	Logarithmic Equations
5.4	Solving Exponential Equations
5.5	Graphs of Logarithmic Functions & Applications
5.6	Graphs of Exponential Functions & Applications
6	Basic Trigonometry
6.1	Basic Angles and Simple Trigonometric Equations
6.2	Graphs of Sine, Cosine and Tangent Functions
7	Intermediate Trigonometry
7.1	Proving Trigonometric Identities
7.2	Solving Trigonometric Equations