



# Algebra and Graphs



**Sequences**, Finding the  $n$ th-term, Quadratic sequences



Introducing the essential **Algebraic Language**



**Simplifying Expressions**, Collecting like terms



How to **Expand Brackets** and simplify expressions



**Laws of Indices**, Exponents, Base, Power, Index



Solving **Simultaneous Equations** using 3 methods



**Graphing Functions**, Linear, Parabolas, Cubic, Reciprocal, etc



Solving **Linear Equations**, one step, multi-step



**Factorising**, HCF, Brackets, Difference of 2 squares, etc



Evaluating expressions by **Substitution**



**Real-life graphs**, distance/speed time, acceleration



**Functions**, Evaluate, Inverse and Composite Functions



Solving **Quadratic Equations**, abc-Formula, Factorising



**Transforming Formulae** and Changing the Subject



Learn how to solve and graph **Inequalities**



Combining and Simplifying **Algebraic Fractions**



What is **Linear Programming**, Graphing Inequalities



**Constructing Equations** and Solving them

