

## **Mathematical Methods Units 1 and 2**

Mathematical Methods provides an introductory study of simple elementary functions of a single real variable, algebra, calculus, probability and statistics and their applications in a variety of practical and theoretical contexts. This unit is designed as preparation for Mathematical Methods Units 3 & 4.

In VCE General Mathematics, students have access to worthwhile and challenging mathematical learning activities. Students learn, practice and apply mathematical routines and techniques by undertaking application tasks, solving problems set in both unfamiliar and real life situations and finding solutions to standard problems. This course involves the use of technology and utilises sophisticated CAS graphic calculators.

### **UNIT 1 & 2**

The focus of these unit is the study of algebraic functions, and the area of study are 'Functions and Graphs', 'Algebra', 'Calculus' and 'Probability and Statistics'. Students are expected to be able to apply techniques, routines and processes with and without the use of technology.

#### **Key skills required**

Functions and graphs - graphical representation and key features of functions; behavior explores in a variety of modelling contexts

Algebra - supports the work in all other areas of the curriculum

Calculus - Constant and average rates of changes using graphical and numerical approaches

Probability & Statistics - Concepts of event, frequency, probability and representation of sample spaces and events.

Use of CAS calculator

#### **Assessed tasks**

Assignments

Tests

Summary or Review Notes

Projects

Short written responses

Problem solving tasks

Modelling tasks