

# VCE Mathematical Methods 2016–2018

## Written examinations 1 and 2 – End of year

### Examination specifications

#### Overall conditions

There will be two end-of-year examinations for VCE Mathematical Methods – examination 1 and examination 2.

The examinations will be sat at a time and date to be set annually by the Victorian Curriculum and Assessment Authority (VCAA). VCAA examination rules will apply. Details of these rules are published annually in the *VCE and VCAL Administrative Handbook*.

**Examination 1** will have 15 minutes reading time and 1 hour writing time. Students are not permitted to bring into the examination room any technology (calculators or software) or notes of any kind.

**Examination 2** will have 15 minutes reading time and 2 hours writing time. Students are permitted to bring into the examination room an approved technology with numerical, graphical, symbolic and statistical functionality, as specified in the *VCAA Bulletin* and the *VCE Exams Navigator*. One bound reference may be brought into the examination room. This may be a textbook (which may be annotated), a securely bound lecture pad, a permanently bound student-constructed set of notes without fold-outs or an exercise book. Specifications for the bound reference are published annually in the *VCE Exams Navigator*.

A formula sheet will be provided with both examinations.

The examinations will be marked by a panel appointed by the VCAA.

Examination 1 will contribute 22 per cent to the study score. Examination 2 will contribute 44 per cent to the study score.

## Content

The *VCE Mathematics Study Design 2016–2018* ('Mathematical Methods Units 3 and 4') is the document for the development of the examination. All outcomes in 'Mathematical Methods Units 3 and 4' will be examined.

All content from the areas of study, and the key knowledge and skills that underpin the outcomes in Units 3 and 4, are examinable.

**Examination 1** will cover all areas of study in relation to Outcome 1. The examination is designed to assess students' knowledge of mathematical concepts, their skill in carrying out mathematical algorithms without the use of technology, and their ability to apply concepts and skills.

**Examination 2** will cover all areas of study in relation to all three outcomes, with an emphasis on Outcome 2. The examination is designed to assess students' ability to understand and communicate mathematical ideas, and to interpret, analyse and solve both routine and non-routine problems.

## Format

### Examination 1

The examination will be in the form of a question and answer book.

The examination will consist of short-answer and extended-answer questions. All questions will be compulsory.

The total marks for the examination will be 40.

A formula sheet will be provided with the examination. The formula sheet will be the same for examinations 1 and 2.

All answers are to be recorded in the spaces provided in the question and answer book.

### Examination 2

The examination will be in the form of a question and answer book.

The examination will consist of two sections.

**Section A** will consist of 20 multiple-choice questions worth 1 mark each and will be worth a total of 20 marks.

**Section B** will consist of short-answer and extended-answer questions, including multi-stage questions of increasing complexity, and will be worth a total of 60 marks.

All questions will be compulsory. The total marks for the examination will be 80.

A formula sheet will be provided with the examination. The formula sheet will be the same for examinations 1 and 2.

Answers to Section A are to be recorded on the answer sheet provided for multiple-choice questions.

Answers to Section B are to be recorded in the spaces provided in the question and answer book.

## Approved materials and equipment

### Examination 1

- normal stationery requirements (pens, pencils, highlighters, erasers, sharpeners and rulers)

### Examination 2

- normal stationery requirements (pens, pencils, highlighters, erasers, sharpeners and rulers)
- an approved technology with numerical, graphical, symbolic and statistical functionality
- one scientific calculator
- one bound reference

## Relevant references

The following publications should be referred to in relation to the VCE Mathematical Methods examinations:

- *VCE Mathematics Study Design 2016–2018* ('Mathematical Methods Units 3 and 4')
- *VCE Mathematical Methods – Advice for teachers 2016–2018* (includes assessment advice)
- *VCE Exams Navigator*
- *VCAA Bulletin*

## Advice

During the 2016–2018 accreditation period for VCE Mathematical Methods, examinations will be prepared according to the examination specifications above. Each examination will conform to these specifications and will test a representative sample of the key knowledge and skills from all outcomes in Units 3 and 4.

The following sample examinations provide an indication of the types of questions teachers and students can expect until the current accreditation period is over.

Answers to multiple-choice questions are provided at the end of examination 2.

Answers to other questions are not provided.