

Exam Practice Guide

Unit 2

Specialist Mathematics Examination 1

Key Features:

- ✓ 48 original examination style questions on all examinable topics.
- ✓ Full solutions and a marking guide to all questions.
- ✓ Separated into key topic areas within each Area of Study, enabling students to master one topic at a time.
- ✓ Written by VCE assessors who mark the real examinations.
- ✓ Excellent resource for examination practice.

Helping VCE students be the best they can be.

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SAMPLE

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Area of Study 1 - Algebra**Topic 1 – Boolean Algebra****Question 1**

Consider the statement: "My favourite food is spaghetti bolognese or pasta with bolognese sauce".

Let: p = 'spaghetti bolognese'
 q = 'pasta'
 r = 'bolognese sauce'

- a. Construct a truth table for the statement in the space below.

- b. Comment on the results.

4 marks

1 mark

Question 2

Using tautology, establish the validity of the disjunctive syllogism argument:

$$\begin{array}{l} p \vee q \\ \sim p \\ \hline q \end{array}$$

4 marks

Question 3

Using the rules of Boolean algebra, prove that $(A + B)(A' + B) = B$.

3 marks