

Exam Practice Guide

Units 3 & 4

Mathematical Methods (CAS)

Examination 2

Key Features:

- ✓ 119 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

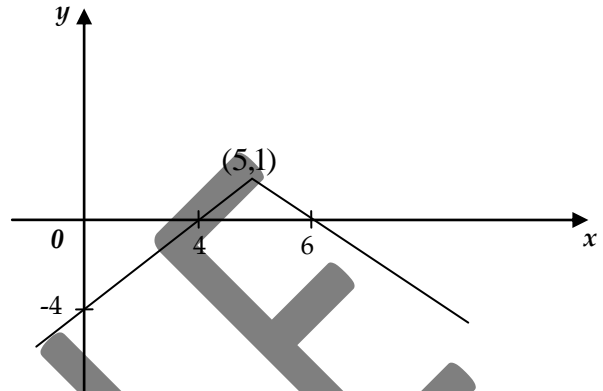
CONTENTS

AREA OF STUDY 1: Functions and Graphs	Page
Topic 1 – Functions and their graphs	4
AREA OF STUDY 2: Algebra	
Topic 1 – Algebraic techniques	31
Topic 2 – Transformations	48
Topic 3 – Algebra of functions	51
AREA OF STUDY 3: Calculus	
Topic 1 – Differential and integral calculus	59
AREA OF STUDY 4: Probability	
Topic 1 – Continuous random variable	92
Topic 2 – Normal distribution	99
Topic 3 – Discrete random variable	103
SOLUTIONS	118

AREA OF STUDY 1: Functions and Graphs**Topic 1 – Functions and their graphs****Question 1**

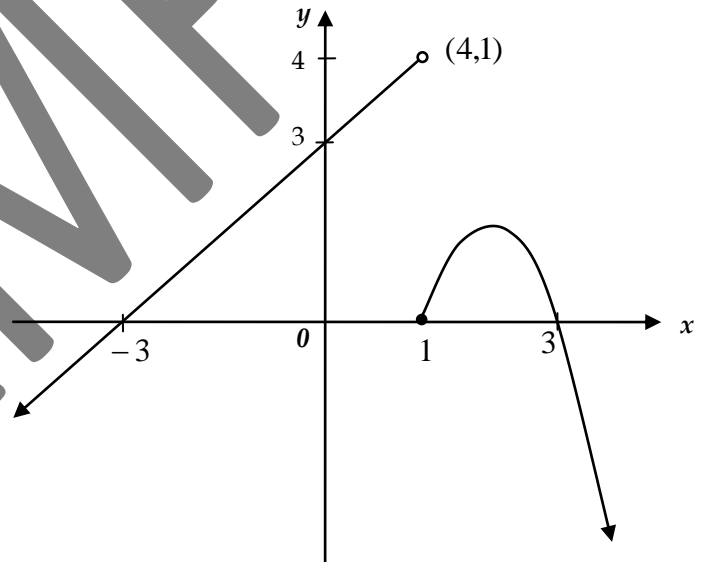
The equation of the curve at right is:

- A. $y = -|x-5|+1$
- B. $y = -|x+5|+1$
- C. $y = x-4$
- D. $y = -|x-5|-1$
- E. $y = |x-5|+1$

**Question 2**

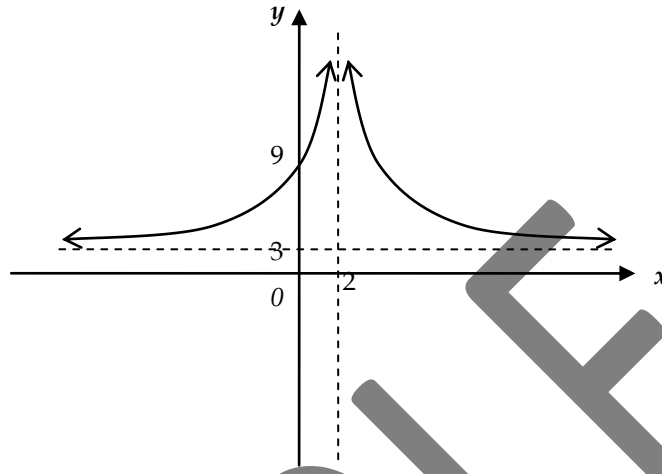
The equation of the curve at right is best described by

- A. $y = \begin{cases} -(x-2)^2 + 1, & x \geq 1 \\ x+3, & x < 1 \end{cases}$
- B. $y = \begin{cases} -(x-2)^2 + 1, & x \geq 1 \\ x-3, & x < 1 \end{cases}$
- C. $y = \begin{cases} (x-2)^2 + 1, & x \geq 1 \\ x+3, & x < 1 \end{cases}$
- D. $y = \begin{cases} -(x+2)^2 + 1, & x \geq 1 \\ x+3, & x < 1 \end{cases}$
- E. $y = \begin{cases} -(x+2)^2 + 1, & x \geq 1 \\ x-3, & x < 1 \end{cases}$



Question 3

Part of the graph of a function with rule $y = \frac{a}{(x-b)^2} + c$ is shown below.



The values of a , b and c respectively are

- | | a | b | c |
|----|-----|-----|-----|
| A. | 6 | 2 | 3 |
| B. | 6 | -2 | 3 |
| C. | 24 | 2 | 3 |
| D. | 24 | -2 | 3 |
| E. | 63 | 3 | 2 |