

VCE Mathematical Methods

Examination 1

Question and Answer Book

- Reading time is 15 minutes
- Writing time is 1 hour

3 questions (11 marks)

Question 1 (3 marks)

Let $f(x) = x^2 + 3x - 5$. Find $f'(x)$.

a. (2 marks)

Find the gradient at $x = 2$.

Question 2 (6 marks)

Let .

a. (1 mark)

State the range of .

b. (3 marks)

Solve .

i. (2 marks)

Show working.

ii. (1 mark)

Exact values.

c. (2 marks)

Sketch the graph.

Question 3 (2 marks)

Solve .