



Subject: Grade 11 Mathematics
Topic: Mathematics: Term 2 - Exam 1
Total: 26 Marks

Name: _____

Date: _____

Question 1: Text Input

3 marks

Solve for x :

$$\sqrt{x-2} + x = 2$$

$$\therefore x = \dots$$

Give your answer as a number only.

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Question 2: Please Fill In The Blanks

4 marks

Solve for x :

$$3x(1) = 8$$

$$x = (2) \text{ or } x = (\dots) .$$

Select the answers in the order that they appear on the list.

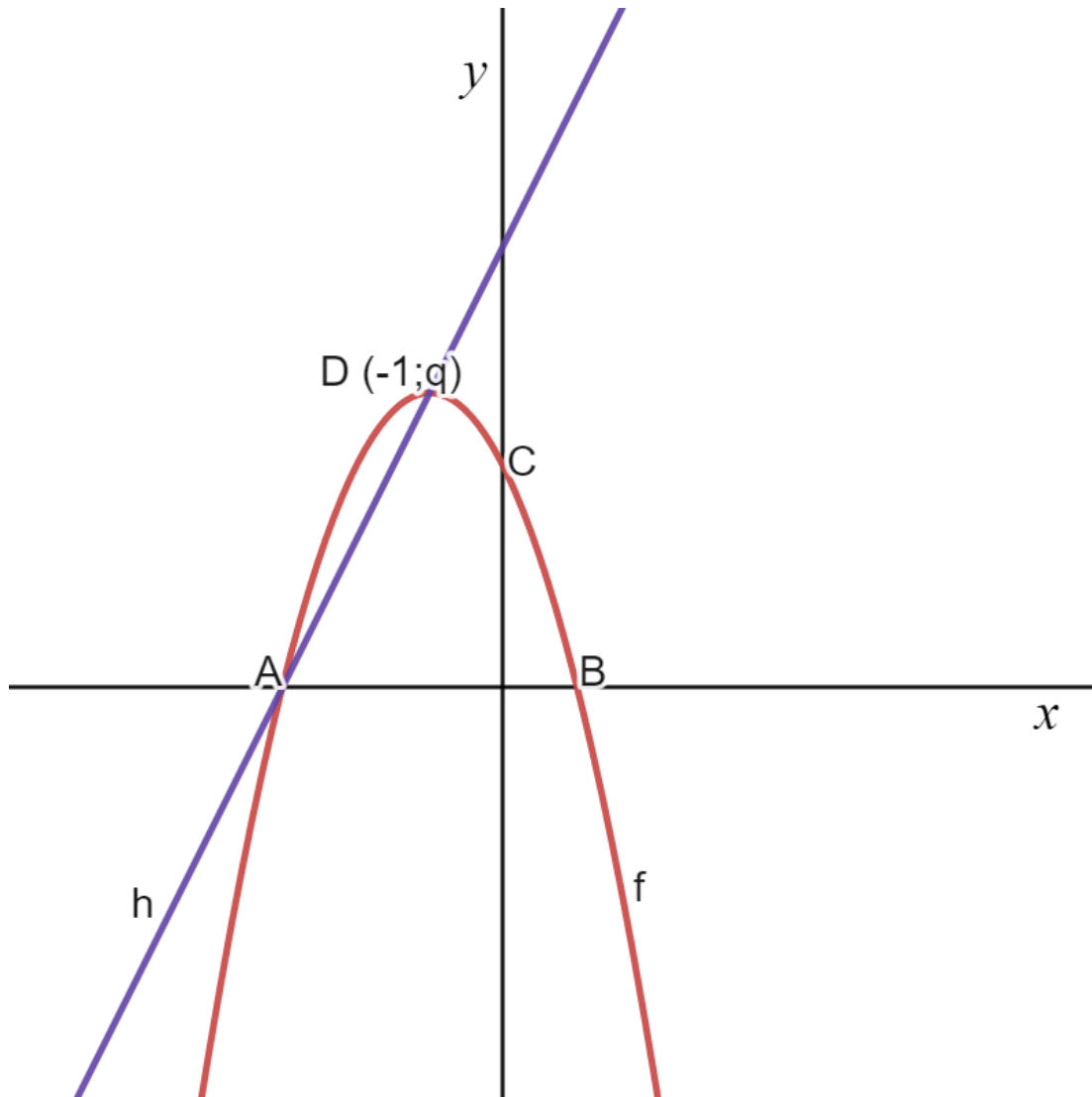
Possible Answers: 8/3 | -2,91 | -2 | 0,91 | 3/8 | 2 | -0,91 | 0 | 2,91

1	
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2	
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This image refers to question: 3





Question 3: True/False

2 marks

Given:

$$f(x) = a(x - p)^2 + q \text{ and}$$

$$h(x) = 2x + 6$$

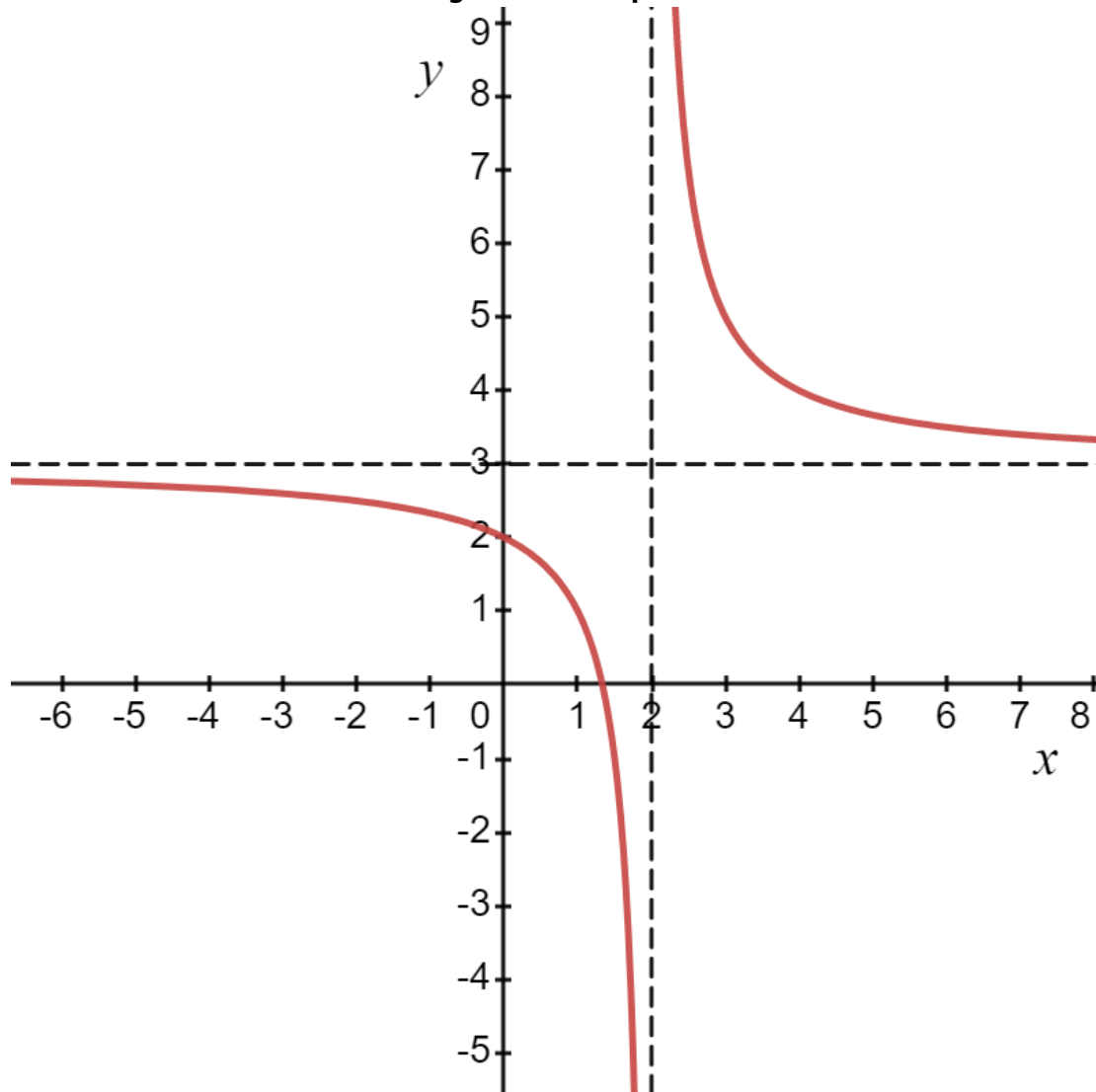
A and B represents the x -intercepts of f and C represents the y -intercept. f and h intersect at A and D , D being the turning point of f .

The q value is -1 .

TRUE

FALSE

This image refers to question: 4



Question 4: Text Input

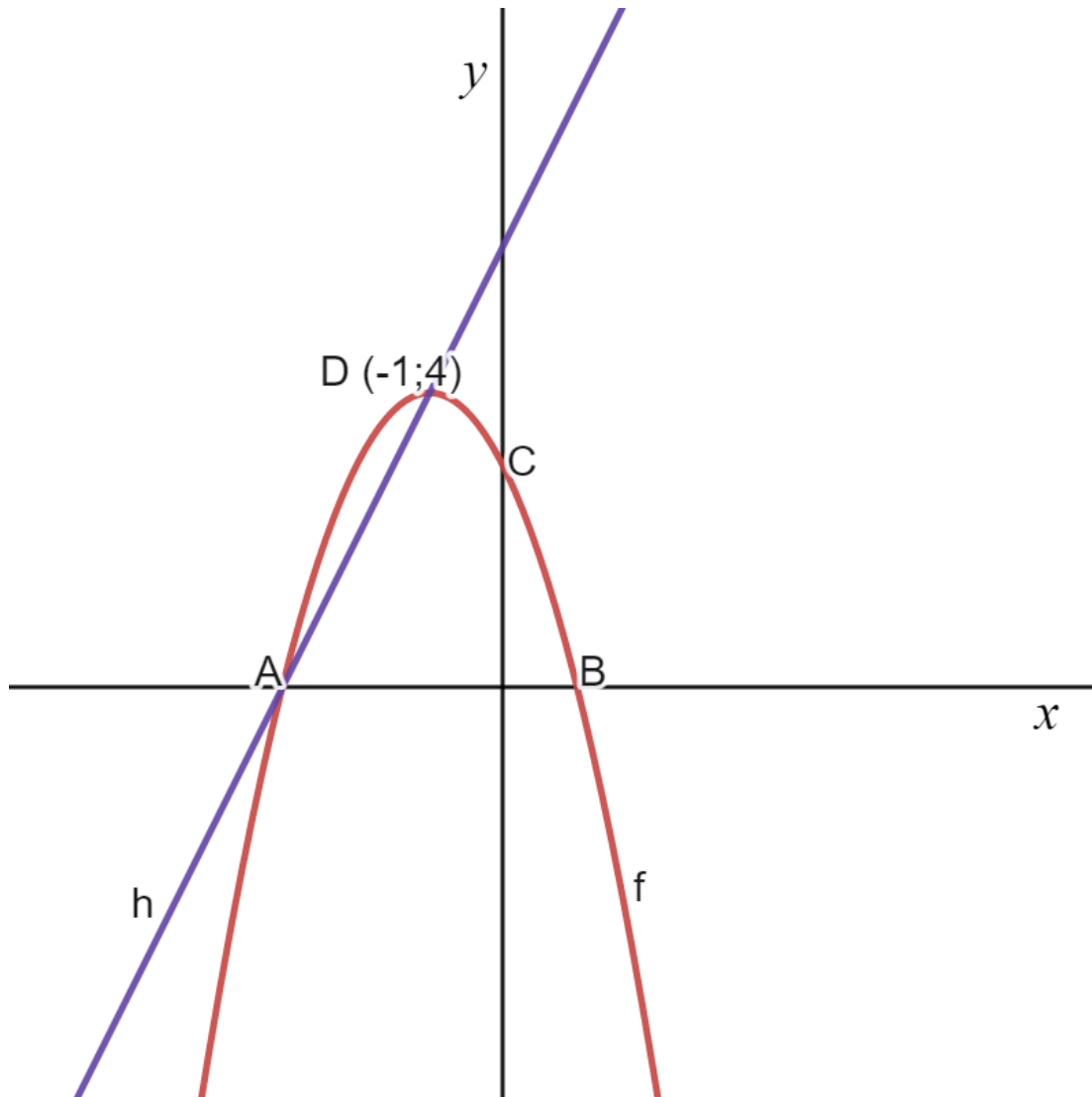
3 marks

Given: $g(x) = \frac{2}{x-2} + 3$

Determine the equation of the axis of symmetry with a positive gradient.

Give your answer in the form $y = \dots$

This image refers to question: 5



Question 5: Please Fill In The Blanks

6 marks

Given:

$$f(x) = ax^2 + bx + c \text{ and}$$

$$h(x) = 2x + 6.$$

A and B represents the x -intercepts of f and C represents the y -intercept.

f and h intersect at A and D , D being the turning point of f .

The value of $a = (1)$, $b = (2)$ and $c = (3)$.

Possible Answers: -3 | -2 | -1 | 0 | 1 | 2 | 3

1	
3	

2	
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Question 6: Please Fill In The Blanks

8 marks

Given: $g(x) = \frac{2}{x-2} + 3$

The equation of the **vertical** asymptote will be (1) = (2) .

The equation of the **horizontal** asymptote will be (3) = (4) .

Possible Answers: x | y | -3 | -2 | 2 | 3

1	
3	

2	
4	

Total: 26 Marks