

# O LEVEL MATHS

## 4024/21

## Paper 2

## October November 2022

## Full Solution

### Cambridge O Level

Candidate  
name

Candidate  
number

Candidate  
number

MATHEMATICS (SYLLABUS 20)

4024/21

Paper 2

October/November 2022

2 hours 30 minutes

You must answer on the question paper.

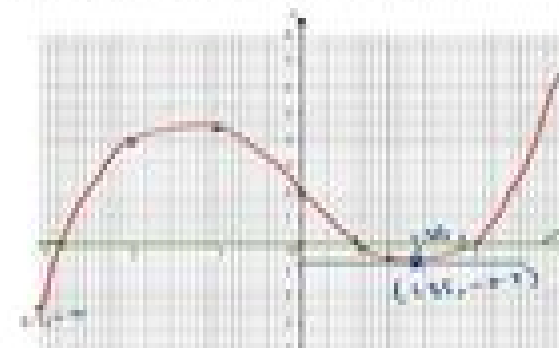
You will need: Geometrical instruments

# Solved

#### Useful Notes

- Answer all questions.
- Use a ruler in both directions. You may use an ink pencil for any diagrams or graphs.
- Write your name, centre number and candidate number in the boxes at the top of the page.
- Write your answer to each question in the space provided.

1. The first part shows the graph of  $y = \frac{1}{2}x^2 - 3x + 4$  for  $x$  from 0 to 10.



(a) Show clearly the coordinates of the minimum point of your graph for  $y = \frac{1}{2}x^2 - 3x + 4$ .

(b) Use your graph to solve the equation  $\frac{1}{2}x^2 - 3x + 4 = 0$ .

2. A is a point on a horizontal ground.

The angle of elevation of the top of a vertical mast from A is  $45^\circ$ , as shown in the diagram. The distance of the base of the mast from A is 40 m.

Find the height of the mast.

$$\begin{aligned} \tan \theta &= \frac{\text{opposite}}{\text{adjacent}} \\ \tan 45^\circ &= \frac{h}{40} \\ \left( \frac{h}{40} \right)_{\tan 45^\circ} &= \left( \frac{h}{40} \right)_{\tan 45^\circ} \\ h &= 40 \end{aligned}$$



$$\begin{aligned} \left( \frac{h}{40} \right)_{\tan 45^\circ} &= \left( \frac{h}{40} \right)_{\tan 45^\circ} \\ h &= 40 \end{aligned}$$

(Mark 4)

# Maths 2014 October November 4024 21 Paper O L

**Padhraic Smyth**



**Maths 2014 October November 4024 21 Paper O L:**  
**Who's who in America ,2003**

## **Maths 2014 October November 4024 21 Paper O L** Book Review: Unveiling the Magic of Language

In an electronic era where connections and knowledge reign supreme, the enchanting power of language has are more apparent than ever. Its ability to stir emotions, provoke thought, and instigate transformation is actually remarkable. This extraordinary book, aptly titled "**Maths 2014 October November 4024 21 Paper O L**," published by a very acclaimed author, immerses readers in a captivating exploration of the significance of language and its profound effect on our existence. Throughout this critique, we will delve to the book is central themes, evaluate its unique writing style, and assess its overall influence on its readership.

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