



Oxford Cambridge and RSA

Thursday 19 June 2025 – Afternoon

A Level Mathematics A

H240/03 Pure Mathematics and Mechanics

Printed Answer Booklet

Time allowed: 2 hours



You must have:

- Question Paper H240/03 (inside this document)
- a scientific or graphical calculator



Please write clearly in black ink. **Do not write in the barcodes.**

Centre number

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Candidate number

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First name(s)

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Last name

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INSTRUCTIONS

- Use black ink. You can use an HB pencil, but only for graphs and diagrams.
- Write your answer to each question in the space provided in the **Printed Answer Booklet**. If you need extra space use the lined pages at the end of the Printed Answer Booklet. The question numbers must be clearly shown.
- Answer **all** the questions.
- Where appropriate, your answer should be supported with working. Marks might be given for using a correct method, even if your answer is wrong.
- Give non-exact numerical answers correct to **3** significant figures unless a different degree of accuracy is specified in the question.
- The acceleration due to gravity is denoted by gms^{-2} . When a numerical value is needed use $g = 9.8$ unless a different value is specified in the question.

INFORMATION

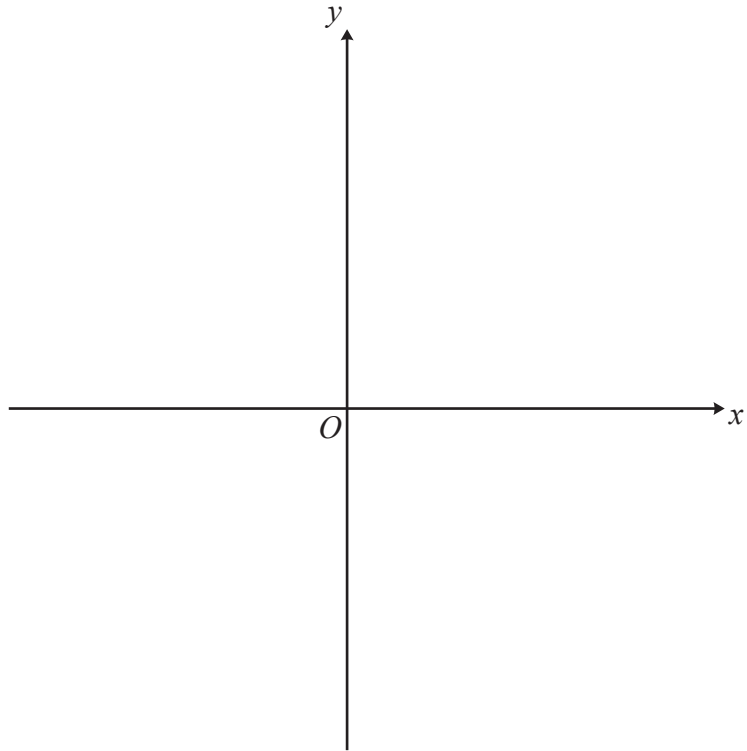
- The total mark for this paper is **100**.
- The marks for each question are shown in brackets [].
- This document has **20** pages.

ADVICE

- Read each question carefully before you start your answer.

Section A
Pure Mathematics

1(a)	
1(b)	
1(c)	
2(a)	
2(b)	

3(a)**3(b)**

3(c)

4(a)	
4(b)	

5
BLANK PAGE

DO NOT WRITE ON THIS PAGE

5(a)	
	5(b)
(answer space continued on next page)	

5(b)	(continued)
5(c)	
5(d)	
5(e)	

6(a)		
6(b)		
	6(c)(i)	
6(c)(ii)		

[illegible]

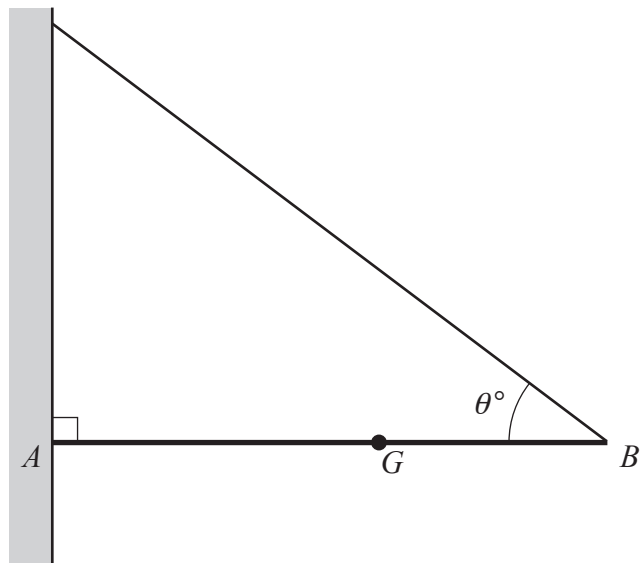
10
Section B
Mechanics

7(a)	
	$a =$
	$b =$
7(b)	
8	Diagram description: A vertical line represents a string connecting two points, A (top) and B (bottom). To the left of point A is the label '0.6 kg'. To the left of point B is the label '0.8 kg'. To the right of point A is an upward-pointing arrow labeled 'RN'. To the right of point B is an upward-pointing arrow labeled '0.3 N'.
8(a)	

8(b)

9

10



10(a)

10(b)

10(c)

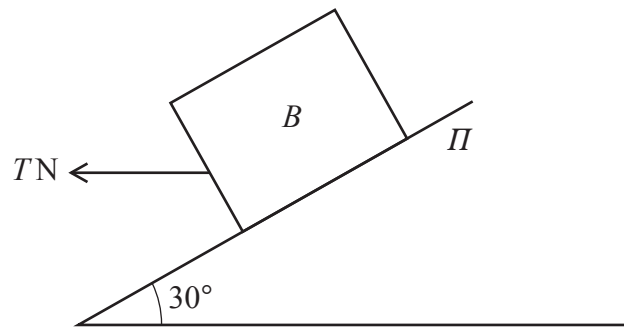
11(a)	
11(b)	

11(c)

Speed of $P =$ Direction of motion of P :

11(d)

12(a)



12(b)

12(c)	

[illegible]

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