



Oxford Cambridge and RSA

**Tuesday 21 June 2022 – 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  $g \text{ ms}^{-2}$ . 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**

<b>1</b>	
<b>2(a)</b>	
<b>2(b)</b>	
<b>2(c)</b>	















<b>6 (continued)</b>	
<b>7(a)</b>	



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**Section B: Mechanics**

<b>8</b>	
<b>9(a)</b>	
<b>9(b)</b>	

<b>10(a)</b>	
<b>10(b)</b>	
<b>10(c)</b>	



<b>12(a)</b>	
<b>12(b)</b>	
<b>12(c)</b>	









<b>13(c)</b>	
<b>13(d)</b>	
<b>13(e)</b>	



