OCR
Oxford Cambridge and RSA

# Thursday 12 June 2025 – Afternoon

## A Level Mathematics A

**H240/02** Pure Mathematics and Statistics

Printed Answer Booklet

**Time allowed: 2 hours**

AB

**You must have:**
- Question Paper H240/02 (inside this document)
- a scientific or graphical calculator

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

Centre number | | | | | | Candidate number | | | | |

First name(s) _____

Last name _____

**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 $g\,\text{m}\,\text{s}^{-2}$. 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

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

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| **3(a)(i)** | |
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| **3(a)(ii)** | Lower bound: |
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| **3(b)** | |
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**4(a)**

**4(b)**

5

**6(a)(i)**

**6(a)(ii)**

**6(b)**

**7(a)(i)**

**7(a)(ii)**

**7(b)**

8

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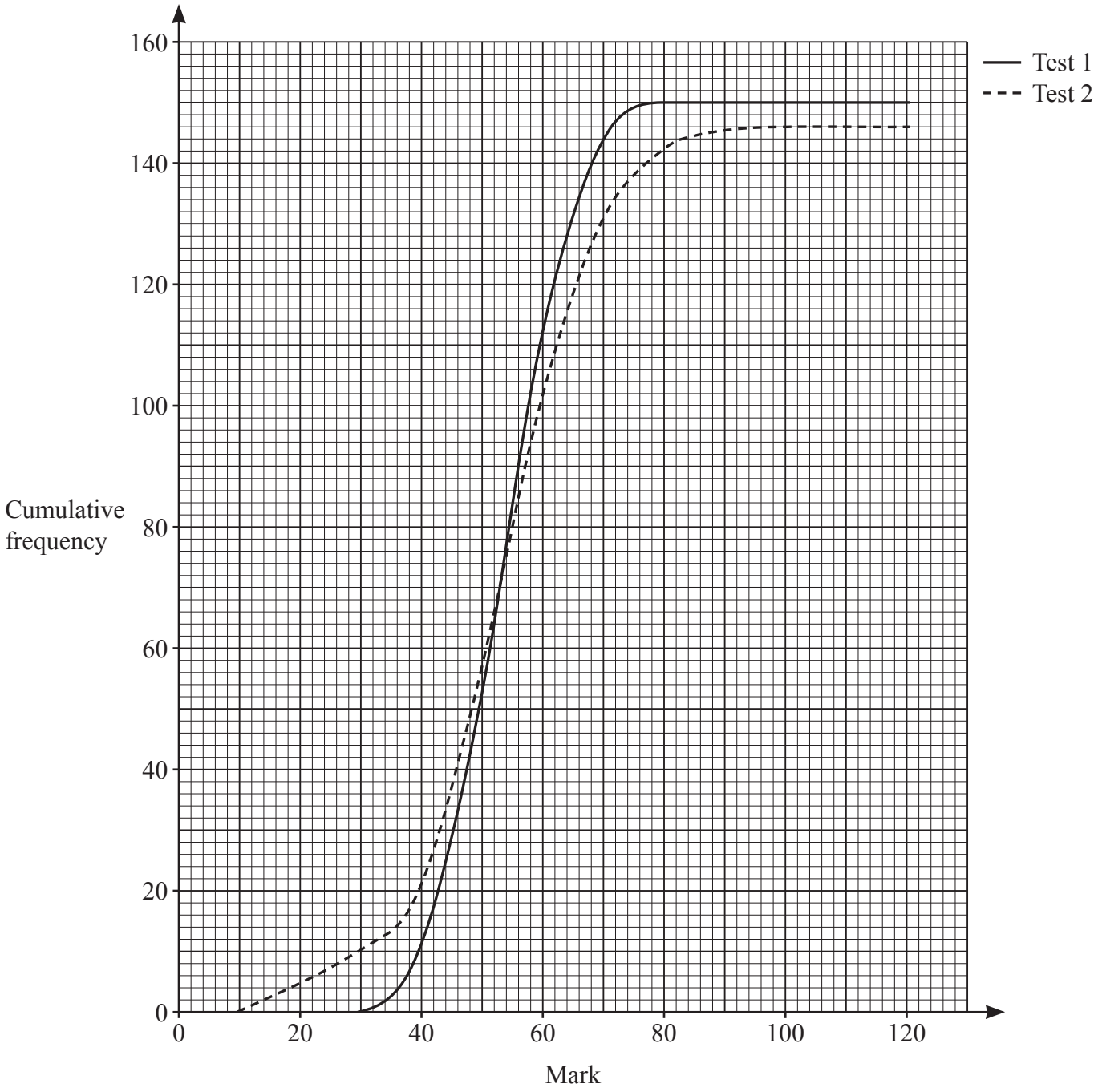
**Section B**
**Statistics**

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|---|---|
| **9(a)** | |
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| **9(b)** | |
| **9(c)** | |
| **9(d)** | |
| **9(e)** | |
| **9(f)(i)** | |
| | Mean = |
| | Standard deviation = |

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| 9(f)(ii) | |
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**10(a)**

**10(b)**

**10(c)**

**11(a)**

**11(b)**

| | |
|---|---|
| **12(a)(i)** | |
| **12(a)(ii)** | |
| **12(b)** | |

| | |
|---|---|
| **13(a)** | |
| **13(b)** | |
| **13(c)** | |
| **13(d)(i)** | |
| **13(d)(ii)** | |

**14(a)**

**14(b)**

**14(c)**

15

## EXTRA ANSWER SPACE

If you need extra space use these lined pages. You must write the question numbers clearly in the margin.