

## Tuesday 6 June 2023 – Afternoon

### A Level Mathematics A

#### H240/01 Pure Mathematics

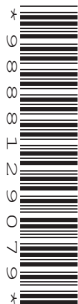
#### Printed Answer Booklet

Time allowed: 2 hours



**You must have:**

- Question Paper H240/01 (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 **16** pages.

#### ADVICE

- Read each question carefully before you start your answer.

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

<b>2(a)(i)</b>	

<b>2(a)(ii)</b>	

<b>2(b)</b>	

<b>3(a)</b>	

<b>3(b)</b>	

<b>4(a)</b>	
<b>4(b)</b>	
<b>4(c)</b>	
<b>4(d)</b>	

<b>5(a)(i)</b>	
<b>5(a)(ii)</b>	
<b>5(b)(i)</b>	
<b>5(b)(ii)</b>	

**6(a)**

**6(b)**

<b>7(a)</b>	
<b>7(b)</b>	
<b>7(c)(i)</b>	
<b>7(c)(ii)</b>	



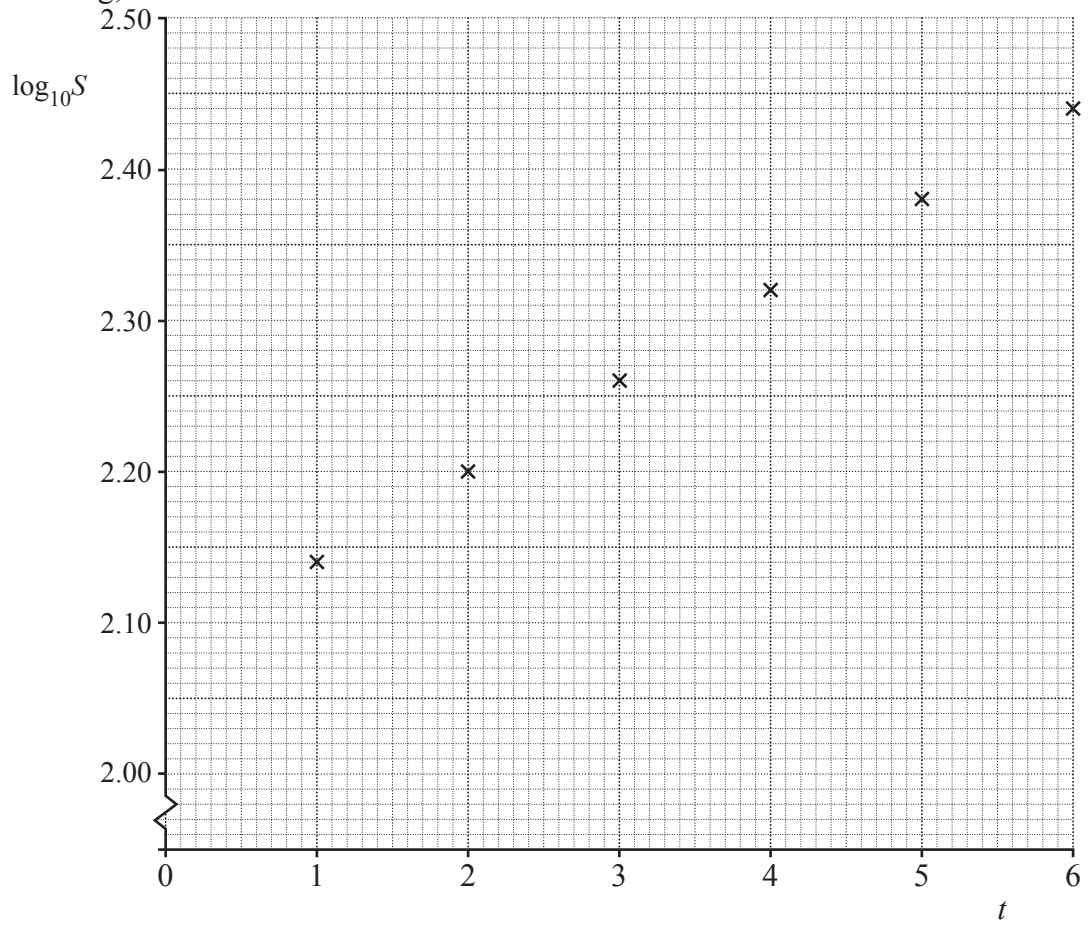
<b>8(a)</b>	
<b>8(b)</b>	
<b>8(c)</b>	

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

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

11(a)


11(b) For working, if needed.




<b>11(c)</b>	
<b>11(d)(i)</b>	
<b>11(d)(ii)</b>	

12(a)


12(b)


(answer space continued on next page)

<b>12(b)</b>	<b>(continued)</b>

**ADDITIONAL ANSWER SPACE**

If additional space is required, you should use the following lined page(s). The question number(s) must be clearly shown in the margin(s).




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