



Oxford Cambridge and RSA

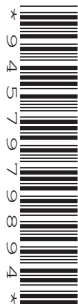
# Wednesday 25 May 2022 – Afternoon

## A Level Further Mathematics A

### Y540/01 Pure Core 1

#### Printed Answer Booklet

**Time allowed: 1 hour 30 minutes**



**You must have:**

- Question Paper Y540/01 (inside this document)
- the Formulae Booklet for A Level Further Mathematics A
- 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  $g \text{ m s}^{-2}$ . 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 **75**.
- 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)</b>	
<b>2(b)</b>	
<b>2(c)</b>	
<b>2(d)</b>	
<b>2(e)</b>	
<b>2(f)</b>	

<b>3(a)</b>	
<b>3(b)(i)</b> <b>3(b)(ii)</b> <b>3(d)</b>	
<b>3(c)(i)</b>	
<b>3(c)(ii)</b>	

**4**


**5(a)**






<b>7(a)</b>	





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

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

**(answer space continued on next page)**

<b>8(a)(ii)</b>	<b>(continued)</b>

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

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