

## Friday 6 June 2025 – Afternoon

### AS Level Further Mathematics B (MEI)

#### Y414/01 Numerical Methods

#### Printed Answer Booklet

Time allowed: 1 hour 15 minutes



**You must have:**

- Question Paper Y414/01 (inside this document)
- the Formulae Booklet for Further Mathematics B (MEI)
- 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 page 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 your final answers to a degree of accuracy that is appropriate to the context.

### INFORMATION

- This document has **12** pages.

### ADVICE

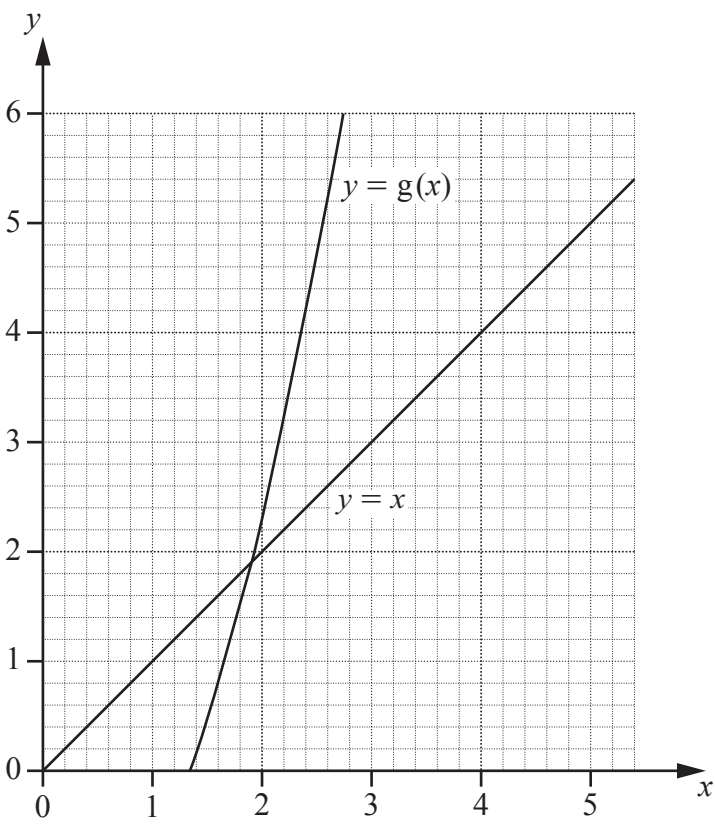
- Read each question carefully before you start your answer.

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<b>1(b)</b>																																																								
<b>1(c)</b>	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr style="background-color: #cccccc;"> <th style="width: 5%;"></th> <th style="width: 12.5%;">A</th> <th style="width: 12.5%;">B</th> <th style="width: 12.5%;">C</th> <th style="width: 12.5%;">D</th> <th style="width: 12.5%;">E</th> <th style="width: 12.5%;">F</th> </tr> </thead> <tbody> <tr> <td style="background-color: #cccccc;">1</td> <td><math>a</math></td> <td><math>f(a)</math></td> <td><math>b</math></td> <td><math>f(b)</math></td> <td><math>c</math></td> <td><math>f(c)</math></td> </tr> <tr> <td style="background-color: #cccccc;">2</td> <td>2</td> <td>-2.61094</td> <td>3</td> <td>2.085537</td> <td>2.5</td> <td>-1.56751</td> </tr> <tr> <td style="background-color: #cccccc;">3</td> <td>2.5</td> <td>-1.56751</td> <td>3</td> <td>2.085537</td> <td>2.75</td> <td>-0.16987</td> </tr> <tr> <td style="background-color: #cccccc;">4</td> <td>2.75</td> <td>-0.16987</td> <td>3</td> <td>2.085537</td> <td>2.875</td> <td>0.834799</td> </tr> <tr> <td style="background-color: #cccccc;">5</td> <td>2.75</td> <td>-0.16987</td> <td>2.875</td> <td>0.834799</td> <td>2.8125</td> <td>0.303839</td> </tr> <tr> <td style="background-color: #cccccc;">6</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>								A	B	C	D	E	F	1	$a$	$f(a)$	$b$	$f(b)$	$c$	$f(c)$	2	2	-2.61094	3	2.085537	2.5	-1.56751	3	2.5	-1.56751	3	2.085537	2.75	-0.16987	4	2.75	-0.16987	3	2.085537	2.875	0.834799	5	2.75	-0.16987	2.875	0.834799	2.8125	0.303839	6						
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<b>5(a)</b>	
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<b>5(d)(i)</b>	
<b>5(d)(ii)</b>	
<b>6(a)</b>	
<b>6(b)</b>	



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

<b>7(c)(iii)</b>	
<b>8(a)</b>	
<b>8(b)</b>	



<b>9(b)(i)</b>	
<b>9(b)(ii)</b>	

**DO NOT WRITE IN THIS SPACE**

