OCR
Oxford Cambridge and RSA

Friday 14 June 2024 – Afternoon

AS Level Further Mathematics B (MEI)

Y414/01 Numerical Methods

Printed Answer Booklet

Time allowed: 1 hour 15 minutes

AB

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 | | | | | | 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 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.

1(a)

x	y	Δy	$\Delta^2 y$	$\Delta^3 y$
0	0.8			
1	0.7			
2	0.1			
3	11.3			
4	70.5			
5	250.6			

1(b)

2(a)

2(b)

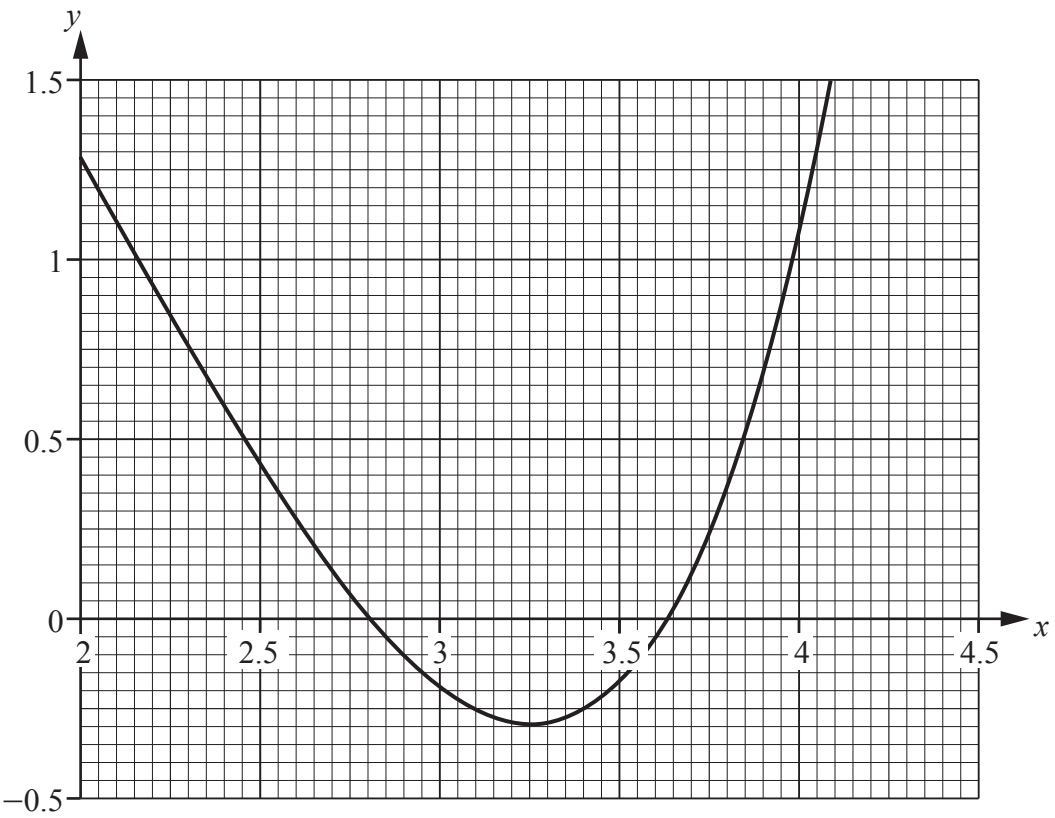
2(c)

3(a)

3(b)

3(c)

4(a)



4(b)

4(c)	
4(d)	
4(e)	
4(f)	
4(g)	

5(a)

h	approximation to f′(5)
0.1	
0.01	
0.001	
0.0001	

5(b)

5(c)

5(d)

6(a)	
6(b)(i)	
6(b)(ii)	

6(b)(iii)	
6(c)	
6(d)	

7(a)	
7(b)	
7(c)	
7(d)	
7(e)	

7(f)

EXTRA ANSWER SPACE

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