



Oxford Cambridge and RSA

Thursday 25 May 2023 – Afternoon

A Level Further Mathematics B (MEI)

Y420/01 Core Pure

Printed Answer Booklet

Time allowed: 2 hours 40 minutes



You must have:

- Question Paper Y420/01 (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)

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 **24** pages.

ADVICE

- Read each question carefully before you start your answer.

Section A (40 marks)

1(a)(i)	
1(a)(ii)	
1(b)(i)	
1(b)(ii)	

3(a)	
3(b)	

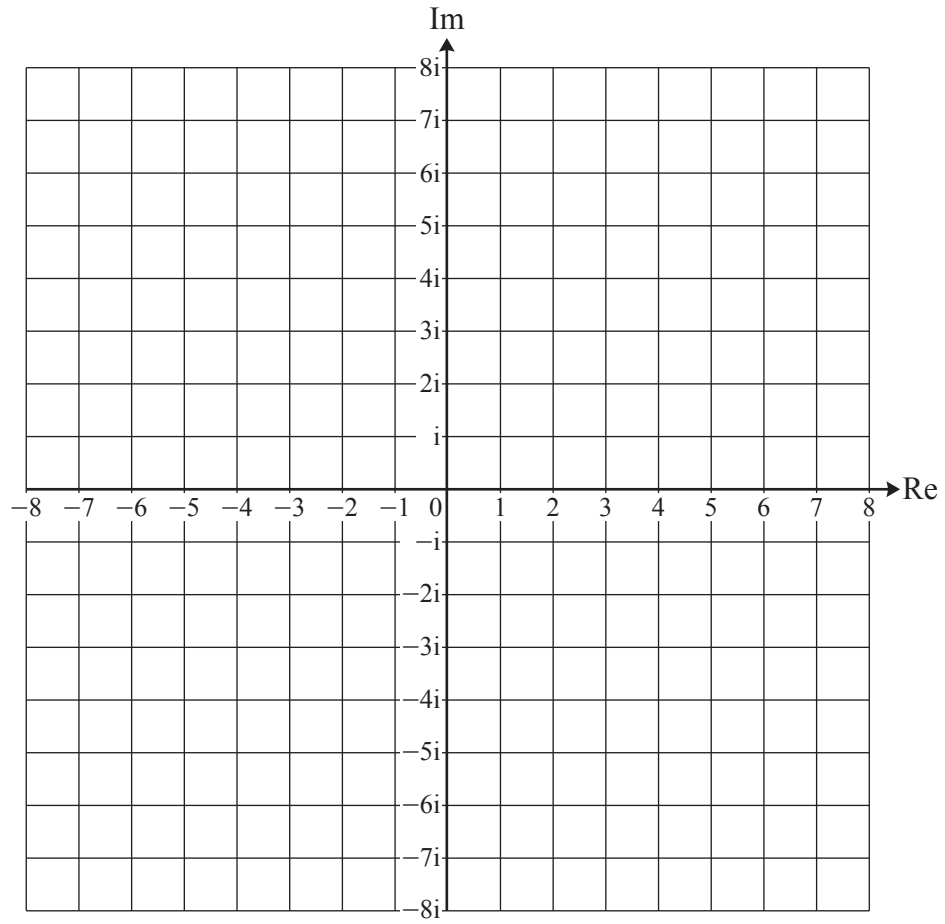
4(a)(i)	
	$f'(x) =$
	$f''(x) =$
4(a)(ii)	
4(b)	

6(a)	
6(b)(i)	
6(b)(ii)	
6(c)	
6(d)	

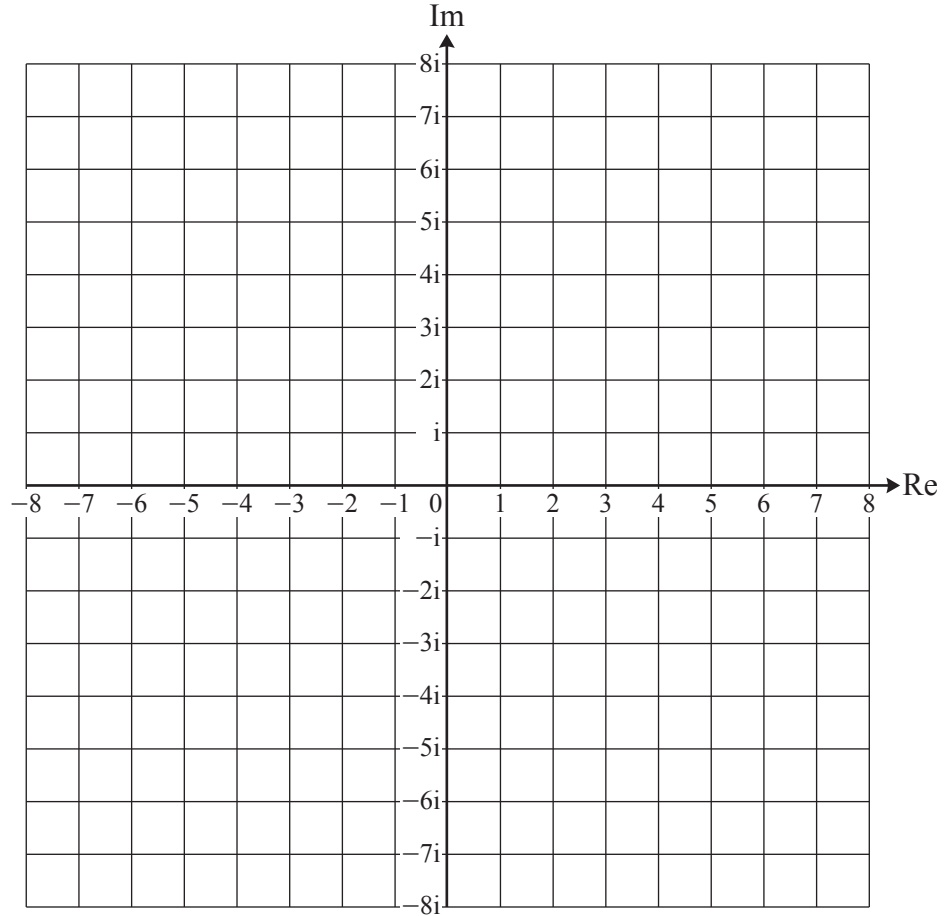
Section B (104 marks)

7(a)	
	Values of r and θ at point A:
	Values of r and θ at point B:
Values of r and θ at point C:	
7(b)	

13(a)(i)



13(a)(ii)



17(a)(i)	
17(a)(ii)	

17(b)(i)	
17(b)(ii)	
17(c)(i)	

17(c)(ii)	
17(c)(iii)	
17(d)(i)	
17(d)(ii)	

