

OCR

Oxford Cambridge and RSA

Tuesday 20 June 2017 – Afternoon

FSMQ ADVANCED LEVEL

6993/01 Additional Mathematics

PRINTED ANSWER BOOK

Candidates answer on the Printed Answer Book.

OCR supplied materials:

- Question Paper 6993/01 (inserted)

Other materials required:

- Scientific or graphical calculator

Duration: 2 hours



Candidate forename		Candidate surname	
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Centre number						Candidate number				
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INSTRUCTIONS TO CANDIDATES

These instructions are the same on the Printed Answer Book and the Question Paper.

- The Question Paper will be found inside the Printed Answer Book.
- Write your name, centre number and candidate number in the spaces provided on the Printed Answer Book. Please write clearly and in capital letters.
- **Write your answer to each question in the space provided in the Printed Answer Book.** If additional space is required, you should use the lined page(s) at the end of this booklet. The question number(s) must be clearly shown.
- Use black ink. HB pencil may be used for graphs and diagrams only.
- Answer **all** the questions.
- Read each question carefully. Make sure you know what you have to do before starting your answer.
- Do **not** write in the barcodes.
- You are permitted to use a scientific or graphical calculator in this paper.
- Final answers should be given correct to three significant figures where appropriate.

INFORMATION FOR CANDIDATES

This information is the same on the Printed Answer Book and the Question Paper.

- The number of marks is given in brackets [] at the end of each question or part question on the Question Paper.
- You are advised that an answer may receive **no marks** unless you show sufficient detail of the working to indicate that a correct method is being used.
- The total number of marks for this paper is **100**.
- The Printed Answer Book consists of **20** pages. The Question Paper consists of **8** pages. Any blank pages are indicated.

1	
2	
3	

5 (i)	
5 (ii)	

6 (i)	

6 (ii)	

7(i)	
7(ii)	

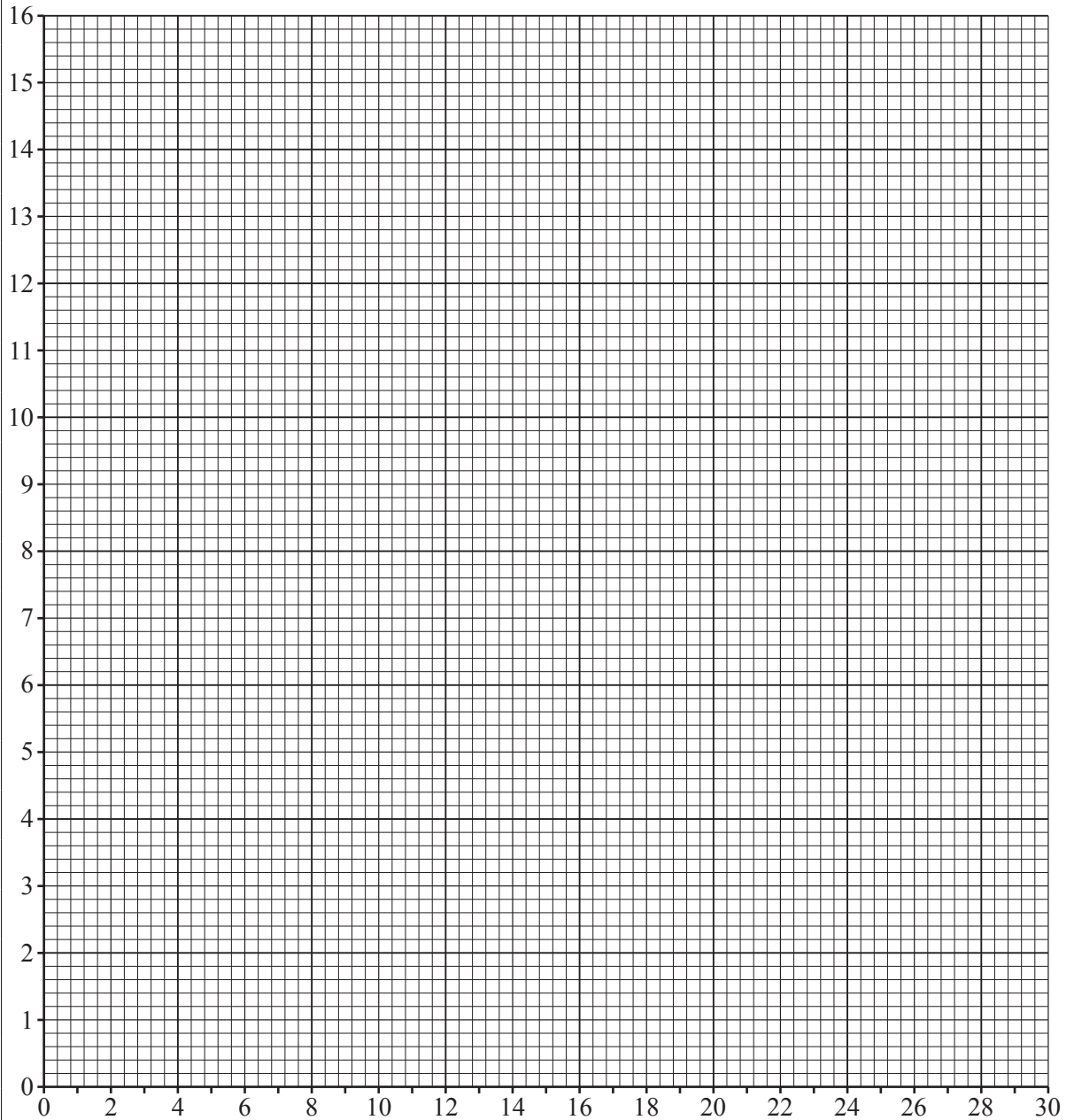
9 (i)	
9 (ii)	

10 (i)	
10 (ii)	
10 (iii)	
10 (iv)	

11 (i)	
11 (ii)	

12 (i)	
12 (ii)	
12 (iii)	
<i>The grid for 12 (iv) is on the facing page with a spare grid on page 18.</i>	
12 (v)	
12 (vi)	

12 (iv)



There is a spare copy of this graph on page 18. If you wish to offer a second attempt, then you must cross through the attempt on this page.

13 (a)(i)	
13 (a)(ii)	

13 (b)(i)	
13 (b)(ii)	

14 (i)	
14 (ii)	

*This is a spare copy of the graph for Question 12 (iv).
Only write on this page if you want to offer a second attempt at the graph.
If you do so, then you must cross through the first attempt on page 13.*

