OCR
Oxford Cambridge and RSA

Monday 18 October 2021 – Afternoon

A Level Mathematics A

H240/03 Pure Mathematics and Mechanics

Printed Answer Booklet

Time allowed: 2 hours

8947562278

You must have:
- Question Paper H240/03 (inside this document)
- a scientific or graphical calculator

H240/03

Please write clearly in black ink. **Do not write in the barcodes.**

Centre number | | | | | | Candidate number | | | | |

First name(s) _____

Last name _____

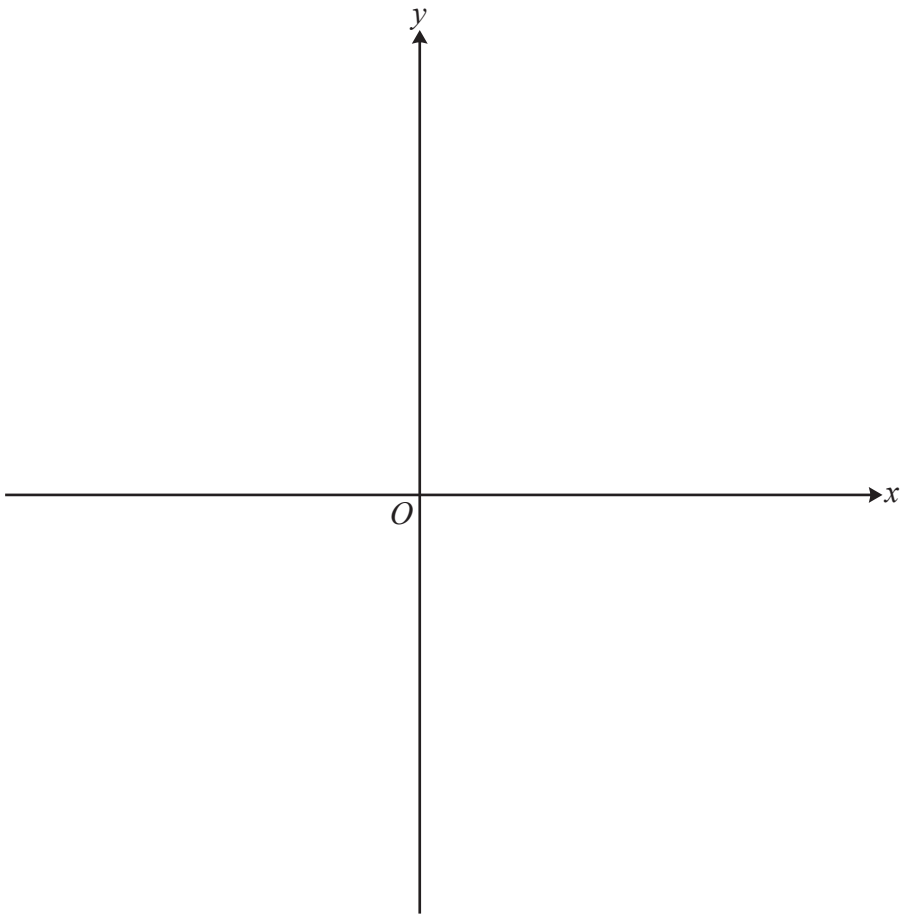
INSTRUCTIONS
- Use black ink. You can use an HB pencil, but only for graphs and diagrams.
- Write your answer to each question in the space provided in the **Printed Answer Booklet**. You can use extra paper if you need to, but you must clearly show your candidate number, the centre number and the question numbers.
- 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 $g\,\text{m}\,\text{s}^{-2}$. 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 **100**.
- The marks for each question are shown in brackets **[ ]**.
- This document has **16** pages.

ADVICE
- Read each question carefully before you start your answer.

Section A: Pure Mathematics

1

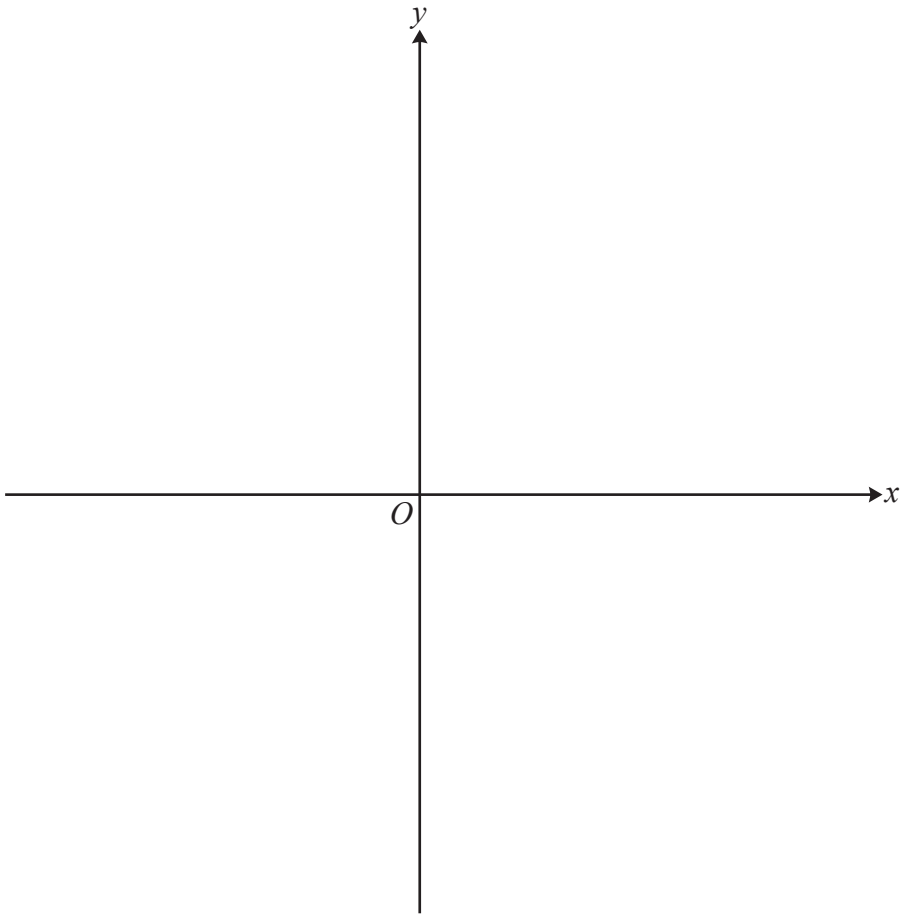


2(a)

2(b)

3

4(a)



4(b)

4(c)

5(a)

5(b)

6(a)	
6(b)	
6(c)	
7(a)	

7(b)

7(c)

8(a)

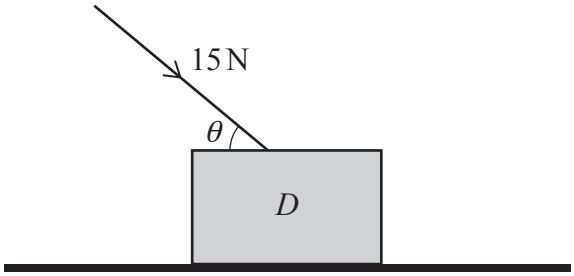
8(b)

Section B: Mechanics

9(a)

9(b)

10(a)



10(b)

11(a)

11(b)

11(c)

11(d)

12(a)

12(b)

13(a)

13(b)

13(c)

14(a)

(answer space continued on next page)

14(a)	**(continued)**
14(b)	