

A Level Further Mathematics B (MEI)

Y421 Mechanics Major

Printed Answer Booklet

Version 2

Date – Morning/Afternoon

Time allowed: 2 hours 15 minutes

You must have:

- Question Paper Y421 (inserted)
- Formulae Further Mathematics B (MEI)

You may use:

- a scientific or graphical calculator



First name

Last name

Centre
number

Candidate
number

INSTRUCTIONS

- The Question Paper will be found inside the Printed Answer Booklet.
- Use black ink. HB pencil may be used for graphs and diagrams only.
- Complete the boxes provided on the Printed Answer Booklet with your name, centre number and candidate number.
- Answer **all** the questions.
- **Write your answer to each question in the space provided in the Printed Answer Booklet.** Additional paper may be used if necessary but you must clearly show your candidate number, centre number and question number(s).
- Do **not** write in the bar codes.
- You are permitted to use a scientific or graphical calculator in this paper.
- Final answers should be given to a degree of accuracy appropriate to the context.
- The acceleration due to gravity is denoted by $g \text{ m s}^{-2}$. Unless otherwise instructed, when a numerical value is needed, use $g = 9.8$.

INFORMATION

- 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 used. You should communicate your method with correct reasoning.
- The Printed Answer Booklet consists of **20** pages. The Question Paper consists of **12** pages.

Section A (26 marks)

1	
2	

3 (i)	
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3 (ii)	
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4 (i)	
4 (ii)	
4 (iii)	

5 (i)

5 (ii)

Section B (94 marks)

6 (i)	
6 (ii)	

6 (iii)	
7 (i)	

7 (ii) <i>(A)</i>	
7 (ii) <i>(B)</i>	

PLEASE DO NOT WRITE IN THIS SPACE

8 (i)	
8 (ii) <i>(A)</i>	
8 (ii) <i>(B)</i>	

8 (iii)	

9 (ii)	
	9 (iii)

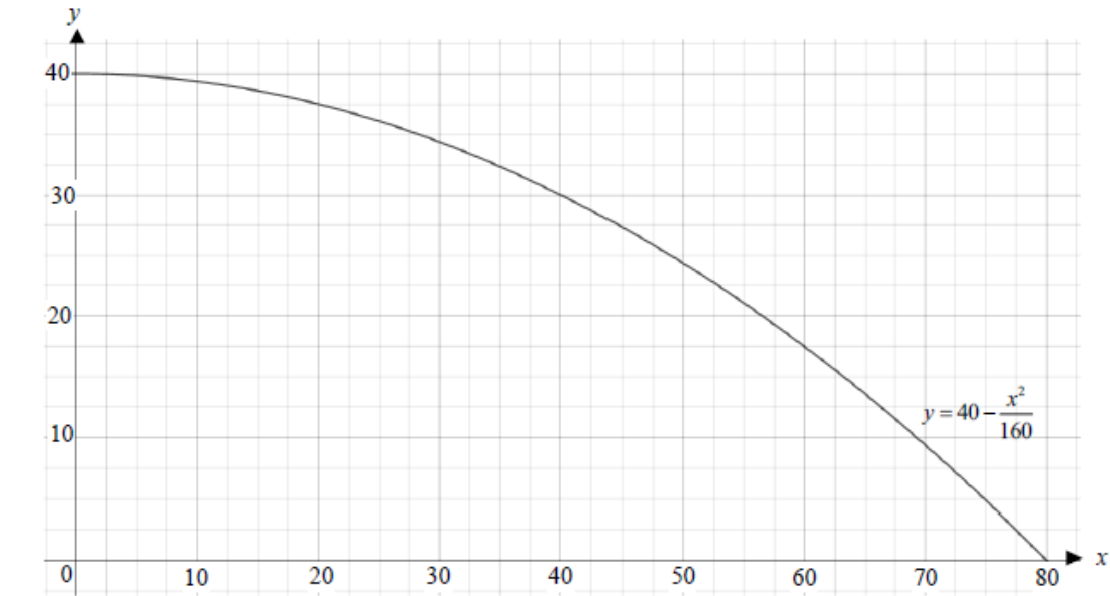
10 (i)	
10 (ii)	

10 (iii) (A)	
10 (iii) (B)	
10 (iv)	
10 (v)	

11 (ii)	

11 (iii)	

12 (ii)
(B) &
12 (iii)

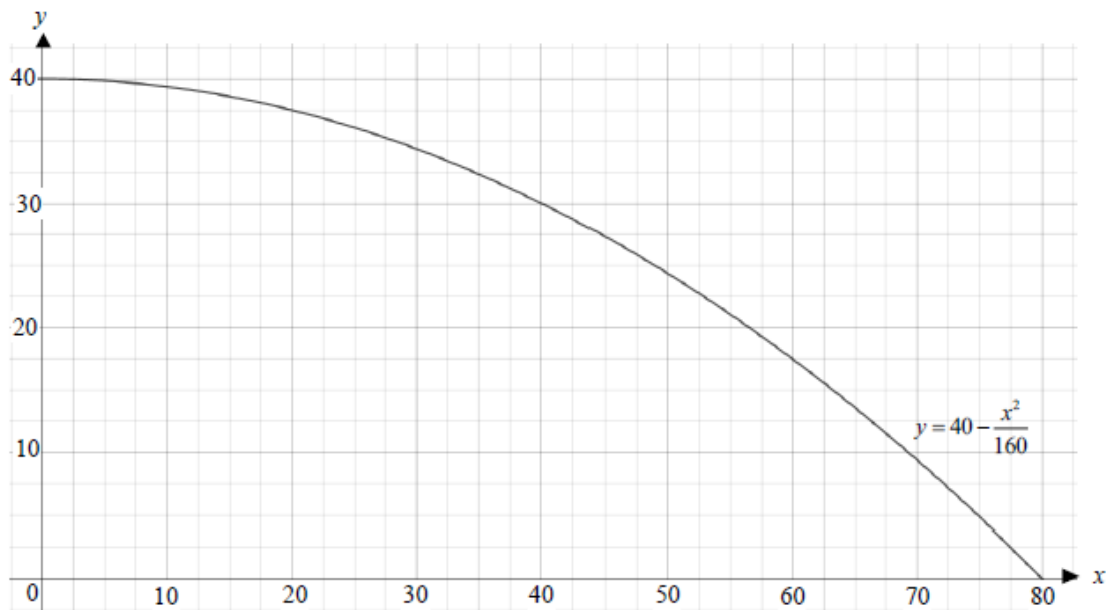


A spare copy of the graph for question 12 (ii) and 12 (iii) can be found on page 20

12 (iv)

12 (v)

Spare copy of graph for question 12 (ii) and 12 (iii)

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