

# Wednesday 22 May 2019 – Morning

## AS Level Mathematics A

**H230/02** Pure Mathematics and Mechanics Printed Answer Booklet

#### Time allowed: 1 hour 30 minutes

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#### You must have:

- Question Paper H230/02 (inserted)
- You may use:
- 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

- The Question Paper will be found inside the Printed Answer Booklet.
- Use black ink. HB pencil may be used for graphs and diagrams only.
- 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).
- You are permitted to use a scientific or graphical calculator in this paper.
- 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  $gm s^{-2}$ . Unless otherwise instructed, when a numerical value is needed, use g = 9.8.

#### INFORMATION

- You are reminded of the need for clear presentation in your answers.
- The Printed Answer Booklet consists of 12 pages. The Question Paper consists of 8 pages.

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### **Section A: Pure Mathematics**

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2(a)	
<i>2</i> ( <i>a</i> )	
2(b)	
2(c)	

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2(1)	
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3(c)	

4(a)	
4(b)	

5(a)	
5(b)	
5(c)	

6(a)	
6(b)	

7	

8(a)		
Image:	<b>8</b> (a)	
8(b)		
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Image:		
8(b)		
	8(b)	

#### **Section B: Mechanics**

9	
10(a)	
10(b)	

9

11(a)	
11(b)	

11()	
11(c)	

11

11(d)	
11(e)	
11(f)	



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