



Oxford Cambridge and RSA

**Wednesday 6 October 2021 – Afternoon**

**AS Level Mathematics A**

**H230/01 Pure Mathematics and Statistics**

**Printed Answer Booklet**

**Time allowed: 1 hour 30 minutes**



**You must have:**

- Question Paper H230/01 (inside this document)
- 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)

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Last name

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**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 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  $g \text{ m s}^{-2}$ . 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 **75**.
- The marks for each question are shown in brackets [ ].
- This document has **16** pages.

**ADVICE**

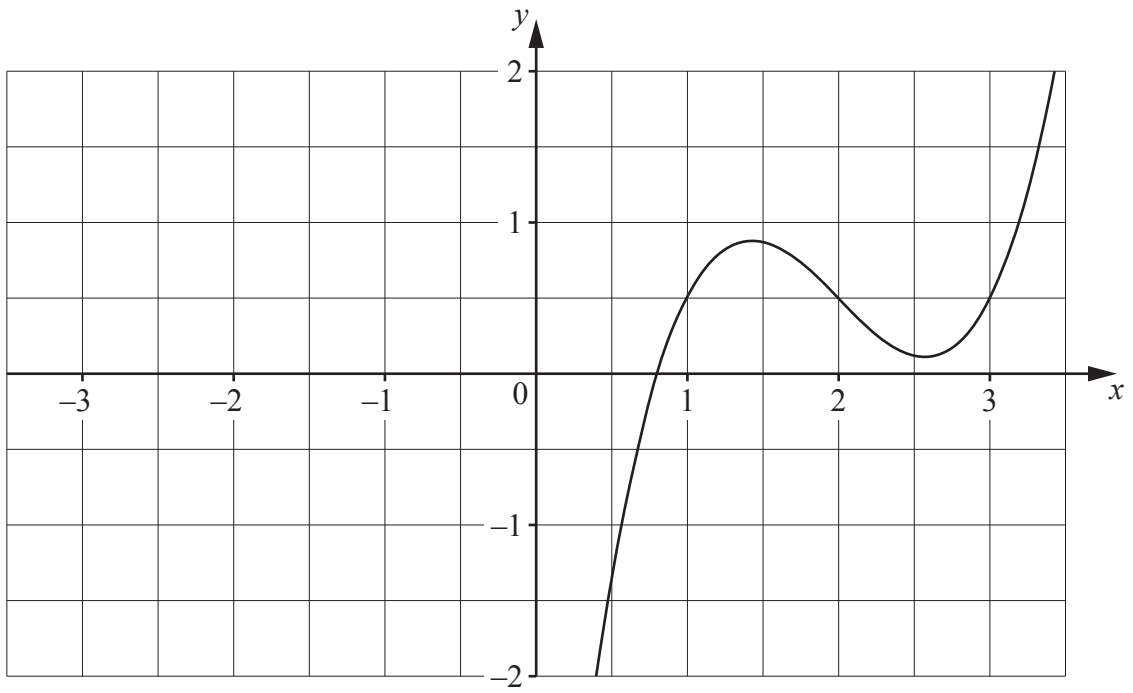
- Read each question carefully before you start your answer.

## Section A: Pure Mathematics

<b>1(a)</b>	
<b>1(b)</b>	
<b>1(c)</b>	

2	

**DO NOT WRITE IN THIS SPACE**

**3(a)****3(b)****3(c)**

<b>4(a)</b>	

<b>4(b)</b>	

<b>5(a)</b>	

<b>5(b)</b>	

<b>5(c)</b>	
<b>5(d)</b>	

<b>6</b>	
<b>7(a)</b>	
<b>7(b)</b>	







Section B: Statistics

<b>10(a)</b>																									
	<table border="1" style="margin: auto; border-collapse: collapse;"> <tr> <td></td> <td colspan="3" style="text-align: center;">Town</td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">A</td> <td style="text-align: center;">B</td> <td style="text-align: center;">C</td> <td style="text-align: center;">Total</td> </tr> <tr> <td style="text-align: center;">adult</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">child</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">Total</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>		Town					A	B	C	Total	adult					child					Total			
	Town																								
	A	B	C	Total																					
adult																									
child																									
Total																									

<b>10(b)(i)</b>	

<b>10(b)(ii)</b>	

<b>10(c)(i)</b>	
<b>10(c)(ii)</b>	
<b>11(a)</b>	
<b>11(b)(i)</b>	
<b>11(b)(ii)</b>	

<p><b>11(c)(i)</b> <b>11(d)</b></p>	<p>Number of residents in age group 18 to 19 in 2011</p> <p>Number of residents in age group 8 to 9 in 2001</p>
<p><b>11(c)(ii)</b></p>	
<p><b>11(d)</b></p>	<p>Label clearly your answer to question <b>11(d)</b> on the diagram for question <b>11(c)(i)</b>.</p>

<b>12(a)</b>	
<b>12(b)</b>	
<b>12(c)</b>	

<b>13(a)</b>	
<b>13(b)</b>	

**ADDITIONAL ANSWER SPACE**

If additional space is required, you should use the following lined page(s). The question number(s) must be clearly shown in the margin(s).




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