

**ADVANCED GCE  
MATHEMATICS**

Core Mathematics 3

**4723**

**PRINTED ANSWER BOOK**

Candidates answer on this printed answer book.

**OCR supplied materials:**

- Question paper 4723 (inserted)
- List of Formulae (MF1)

**Other materials required:**

- Scientific or graphical calculator

**Monday 13 June 2011  
Morning**

**Duration:** 1 hour 30 minutes



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 in the centre of 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.** Additional paper may be used if necessary but you must clearly show your candidate number, centre number and question number(s).
- Use black ink. Pencil may be used for graphs and diagrams only.
- Read each question carefully. Make sure you know what you have to do before starting your answer.
- Answer **all** the questions.
- Do **not** write in the bar codes.
- 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 or is clearly 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 reminded of the need for clear presentation in your answers.**
- The total number of marks for this paper is **72**.
- The printed answer book consists of **12** pages. The question paper consists of **4** pages. Any blank pages are indicated.

<b>1 (i)</b>	
<b>1 (ii)</b>	
<b>2</b>	

<b>3 (a)</b>	

<b>3 (b)</b>	

<b>4 (i)</b>	
<b>4 (ii)</b>	
<b>4 (iii)</b>	

<b>5</b>	

6	



<b>7 (i)</b>	
<b>7 (ii)</b>	
<b>7 (iii)</b>	







<b>8 (iii)</b>	
<b>9 (i)</b>	

<b>9 (ii)</b>	
<b>9 (iii)</b>	