

Centre Number						Candidate Number				
Surname										
Other Names										
Candidate Signature										



General Certificate of Education
Advanced Subsidiary Examination
June 2015

Mathematics

MFP1

Unit Further Pure 1

Friday 5 June 2015 9.00 am to 10.30 am

For this paper you must have:

- the blue AQA booklet of formulae and statistical tables.
- You may use a graphics calculator.

Time allowed

- 1 hour 30 minutes

- Instructions**
- Use black ink or black ball-point pen. Pencil should only be used for drawing.
 - Fill in the boxes at the top of this page.
 - Answer **all** questions.
 - Write the question part reference (eg (a), (b)(i) etc) in the left-hand margin.
 - You must answer each question in the space provided for that question. If you require extra space, use an AQA supplementary answer book; do **not** use the space provided for a different question.
 - Do not write outside the box around each page.
 - Show all necessary working; otherwise marks for method may be lost.
 - Do all rough work in this book. Cross through any work that you do not want to be marked.

- Information**
- The marks for questions are shown in brackets.
 - The maximum mark for this paper is 75.

- Advice**
- Unless stated otherwise, you may quote formulae, without proof, from the booklet.
 - You do not necessarily need to use all the space provided.

For Examiner's Use	
Examiner's Initials	
Question	Mark
1	
2	
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6	
7	
8	
TOTAL	



J U N 1 5 M F P 1 0 1

Answer **all** questions.

Answer each question in the space provided for that question.

- 1** The quadratic equation $2x^2 + 6x + 7 = 0$ has roots α and β .
- (a) Write down the value of $\alpha + \beta$ and the value of $\alpha\beta$. **[2 marks]**
- (b) Find a quadratic equation, with integer coefficients, which has roots $\alpha^2 - 1$ and $\beta^2 - 1$. **[5 marks]**
- (c) **Hence** find the values of α^2 and β^2 . **[2 marks]**

QUESTION
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Answer space for question 1



QUESTION
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Answer space for question 2

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Answer space for question 3

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Answer space for question 4

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Answer space for question 6

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QUESTION
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END OF QUESTIONS



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**DO NOT WRITE ON THIS PAGE
ANSWER IN THE SPACES PROVIDED**

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