

GCE Examinations  
Advanced Subsidiary

## **Core Mathematics C1**

Sample Paper from Solomon Press

Time: 1 hour 30 minutes

### *Instructions and Information*

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Candidates may NOT use a calculator in this paper.

Full marks may be obtained for answers to ALL questions.

Mathematical formulae and statistical tables are available.

This paper has ten questions.

### *Advice to Candidates*

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You must show sufficient working to make your methods clear to an examiner.  
Answers without working may gain no credit.



*Written by Shaun Armstrong*

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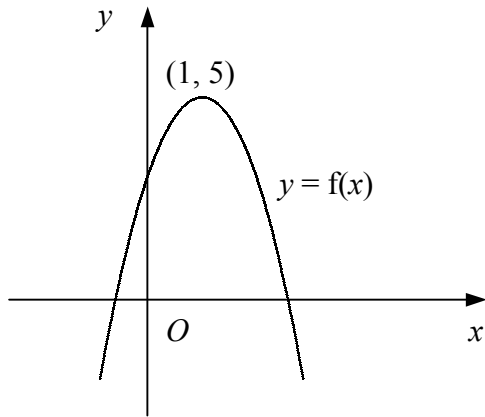








7.



**Figure 1**

Figure 1 shows the curve with equation  $y = f(x)$  which has a turning point at  $(1, 5)$ .

(a) Showing the coordinates of the turning point in each case, sketch on separate diagrams in the spaces provided the curves with equations

(i)  $y = f(x + 3)$ ,

(ii)  $y = f(2x)$ .

**(4)**

(b) Given also that

$$f(x) = ax^2 + bx + 3,$$

find the values of the constants  $a$  and  $b$ .

**(4)**

















