

2

$$f(x) = 7 + 4x - x^2$$

(a) Write  $f(x)$  in the form  $a - b(x + c)^2$  where  $a$ ,  $b$  and  $c$  are integers to be found.

(3)

(b) Hence, or otherwise, find

(i) the maximum value of  $f(x)$

(ii) the value of  $x$  for which this maximum occurs.

(2)

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4



P 6 0 4 7 5 A 0 4 3 6

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**Question 2 continued**

Handwriting practice area with horizontal dotted lines.

**(Total for Question 2 is 5 marks)**

