

DO NOT WRITE IN THIS AREA

Question 5 continued

Handwriting practice area with 20 horizontal dotted lines.

(Total for Question 5 is 11 marks)



- 6 The point  $A$  has coordinates  $(3, 0)$  and the point  $B$  has coordinates  $(2, 2)$ .  
The line  $L_1$  passes through  $B$  and is perpendicular to  $AB$ .

- (a) Find an equation of  $L_1$

Give your answer in the form  $ax + by + c = 0$

(5)

The line  $L_2$  with equation  $x - 7y - 3 = 0$  intersects the line  $L_1$  at the point  $C$ .  
The midpoint of  $AC$  is  $M$ .

- (b) Find the coordinates of  $M$ .

(5)

- (c) Find the area of the triangle  $ABM$ .

(4)

