

- 4 The point A with coordinates $(12, 14)$ and the point B with coordinates $(q, 2)$ where q is a constant, lie on the straight line with equation $3y - 2x - p = 0$ where p is a constant.

(a) Find the value of p and the value of q

(3)

The line L is perpendicular to AB and passes through the point X , which lies on AB such that $AX : XB = 1 : 2$

(b) Find an equation for L in the form $ax + by + c = 0$ where a , b and c are integers to be found.

(6)

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA



DO NOT WRITE IN THIS AREA



Question 4 continued

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA



Question 4 continued

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

(Total for Question 4 is 9 marks)