

8 The points A and B have coordinates $(1,5)$ and $(9,7)$ respectively.

- (a) Find an equation of AB , giving your answer in the form $y = ax + b$, where a and b are rational numbers.

(3)

The line l is the perpendicular bisector of AB .

- (b) Find an equation of l .

(4)

The point C has coordinates $(3,q)$. Given that C lies on l

- (c) find the value of q .

(2)

The line l meets the x -axis at the point D .

- (d) Find the exact area of the kite $ACBD$.

(4)



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(Total for Question 8 is 13 marks)

