

- 2 Relative to a fixed origin O , the point A has position vector $6\mathbf{i} + 5\mathbf{j}$ and the point B has position vector $3\mathbf{i} + 9\mathbf{j}$

(a) Find \overrightarrow{AB} as a simplified vector in terms of \mathbf{i} and \mathbf{j} (2)

The line PQ is parallel to AB . Given that $\overrightarrow{PQ} = 12\mathbf{i} + \lambda\mathbf{j}$

(b) find the value of λ . (2)

(c) Find a unit vector parallel to AB . (2)

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Question 2 continued

Area for writing answers to Question 2 continued.

(Total for Question 2 is 6 marks)

