

4

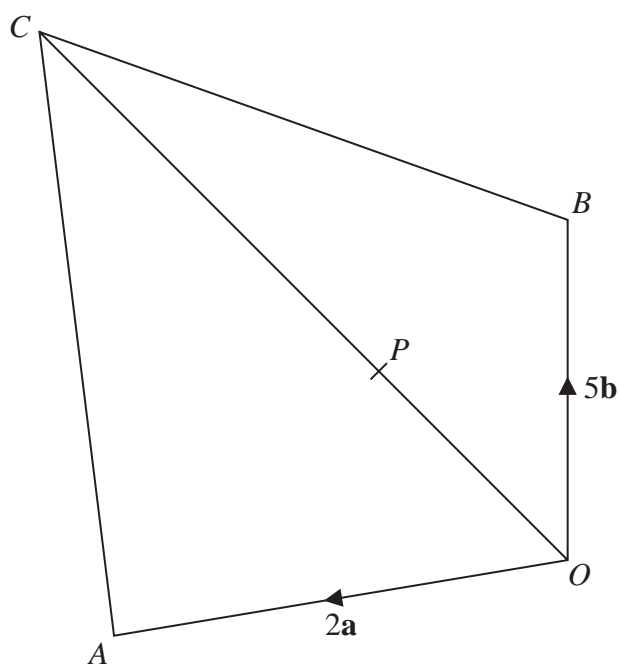
Diagram **NOT**
accurately drawn

Figure 1

In Figure 1, $OACB$ is a quadrilateral in which $\vec{OA} = 2\mathbf{a}$ and $\vec{OB} = 5\mathbf{b}$

(a) Find \vec{AB} in terms of \mathbf{a} and \mathbf{b}

(1)

P is the point on OC such that $OP : PC = 1 : 4$

Given that $\vec{BC} = 6\mathbf{a} + 5\mathbf{b}$

(b) (i) prove that A , P and B are collinear,

(ii) find a value of m and a value of n such that $AP : PB = m : n$

(5)



DO NOT WRITE IN THIS AREA

Question 4 continued

Handwriting practice area with horizontal dotted lines.

(Total for Question 4 is 6 marks)

