

8

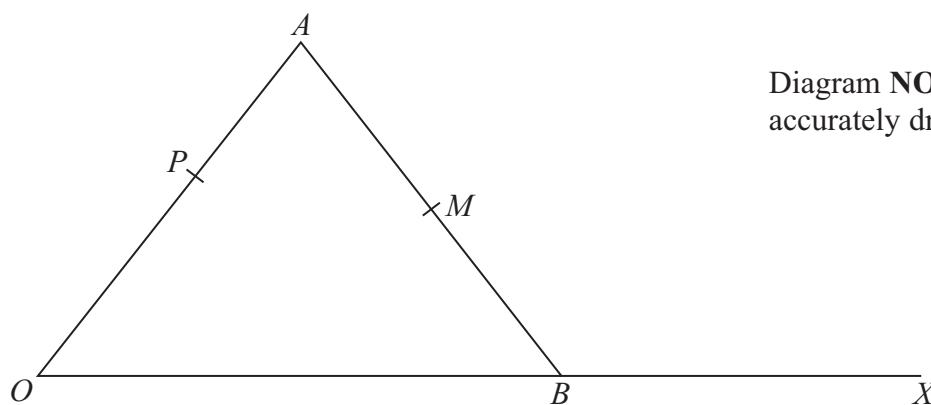


Figure 3

In Figure 3, $\vec{OA} = \mathbf{a}$, $\vec{OB} = \mathbf{b}$ and M is the mid-point of AB .

The point P is on OA such that $OP:PA = 3:2$

The point X lies on OB produced.

(a) Find, as simplified expressions in terms of \mathbf{a} and \mathbf{b} ,

- (i) \vec{AB} (ii) \vec{OM} (iii) \vec{PM}

(6)

Given that P , M and X are collinear

(b) find, in terms of \mathbf{b} , \vec{OX}

(4)

(c) Find the ratio (area $\triangle OAM$):(area $\triangle OAX$).

(3)



Question 8 continued



Question 8 continued

(Total for Question 8 is 13 marks)

