IGCSE – Vectors Paper 2 - 1

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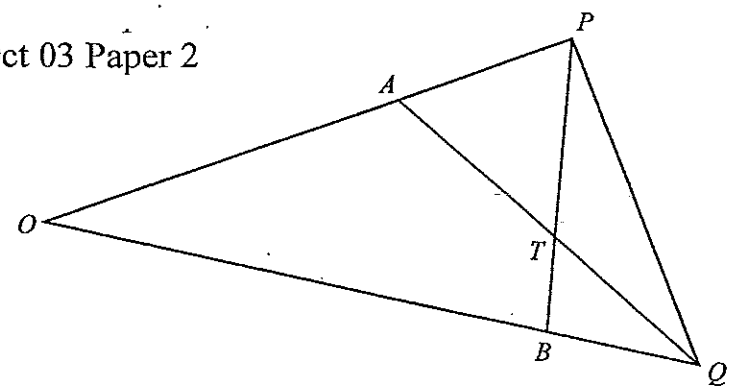
Oct 03 Paper 2



NOT TO SCALE

In the diagram $OA = \frac{2}{3}OP$ and $OB = \frac{3}{4}OQ$.
$\overrightarrow{OP} = \mathbf{p}$ and $\overrightarrow{OQ} = \mathbf{q}$.

(a) Find in terms of **p** and **q**

(i) $\overrightarrow{AQ}$,

Answer (a)(i) $\overrightarrow{AQ}$ = ... [2]

(ii) $\overrightarrow{BP}$.

Answer (a)(ii) $\overrightarrow{BP}$ = ... [2]

(b) AQ and BP intersect at T.
$BT = \frac{1}{3}BP$.
Find $\overrightarrow{QT}$ in terms of **p** and **q**, in its simplest form.

May 02 Paper 2

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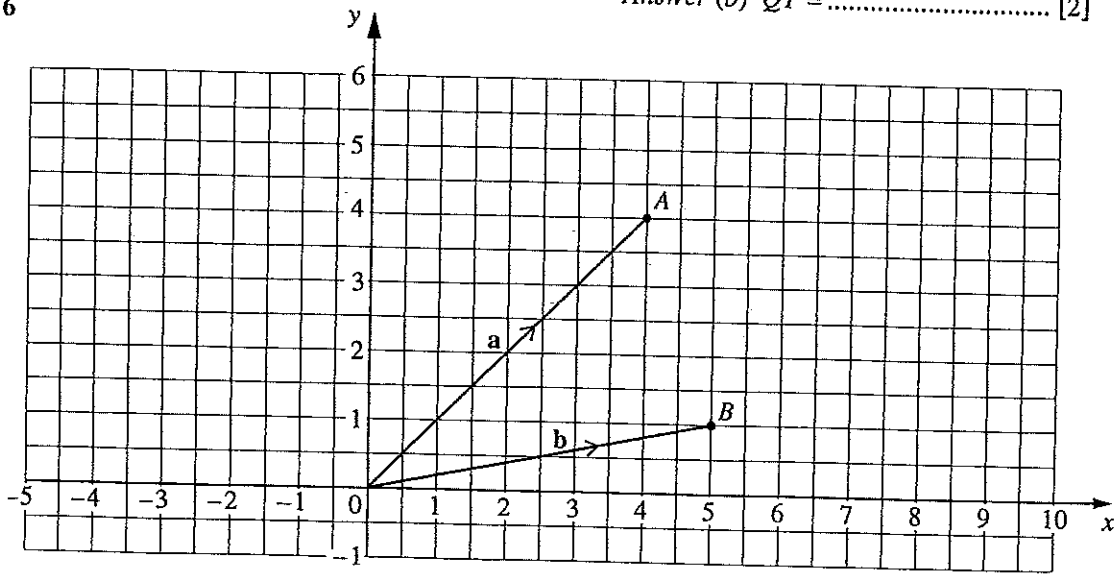
Answer (b) $\overrightarrow{QT}$ = ... [2]



(a) Draw the vector $\overrightarrow{OC}$ so that $\overrightarrow{OC} = \mathbf{a} - \mathbf{b}$. [1]

(b) Write the vector $\overrightarrow{AB}$ in terms of **a** and **b**.

Answer (b) $\overrightarrow{AB}$ ..... [1]