GCSE VECTORS

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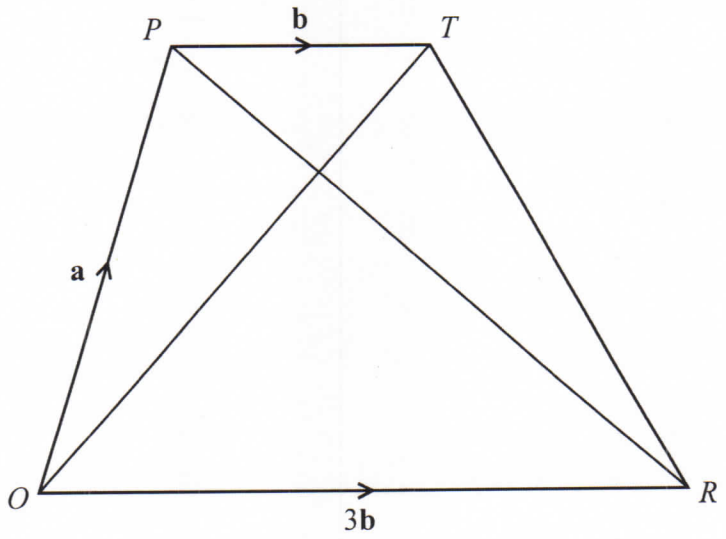

Diagram **NOT** accurately drawn

OPTR is a trapezium.

$\overrightarrow{OP} = \mathbf{a}$
$\overrightarrow{PT} = \mathbf{b}$
$\overrightarrow{OR} = 3\mathbf{b}$

(a) (i) Find $\overrightarrow{OT}$ in terms of **a** and **b**

$\overrightarrow{OT} = \overrightarrow{OP} + \overrightarrow{PT}$

$= \underline{a} + \underline{b}$

(ii) Find $\overrightarrow{PR}$ in terms of **a** and **b**
Give your answer in its simplest form.

$\overrightarrow{PR} = \overrightarrow{PO} + \overrightarrow{OR}$

$= -\underline{a} + 3\underline{b}$

$= 3\underline{b} - \underline{a}$

(2)