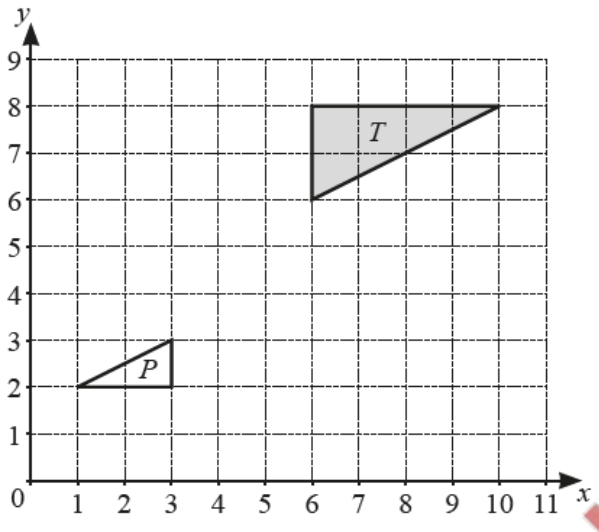
1. June/ 2022/Paper_21/No.16

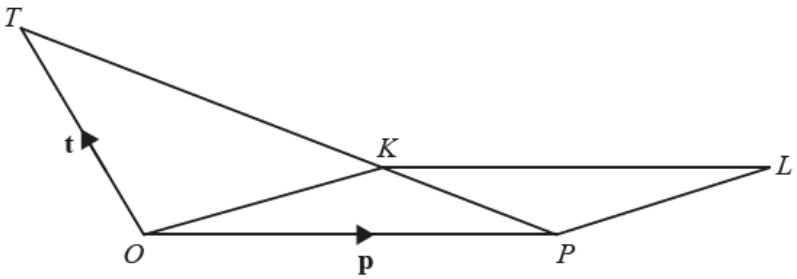


Describe fully the **single** transformation that maps triangle T onto triangle P.

.....

..... [3]

2. June/ 2022/Paper_21/No.28



NOT TO SCALE

The diagram shows a triangle OPT and a parallelogram $OPLK$.
The position vector of P is $\mathbf{p}$ and the position vector of T is $\mathbf{t}$.
K is on PT so that $PK : KT = 1 : 2$.

Find in terms of $\mathbf{p}$ and $\mathbf{t}$,

(a) $\overrightarrow{PK}$,

$\overrightarrow{PK} =$ ..... [2]

(b) the position vector of L, giving your answer in its simplest form.

..... [2]