

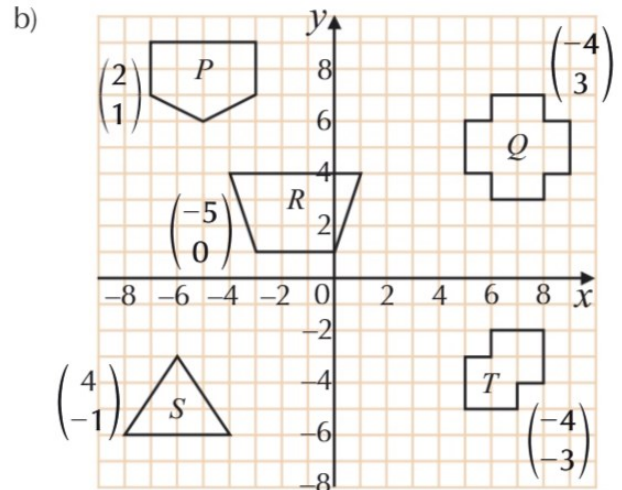
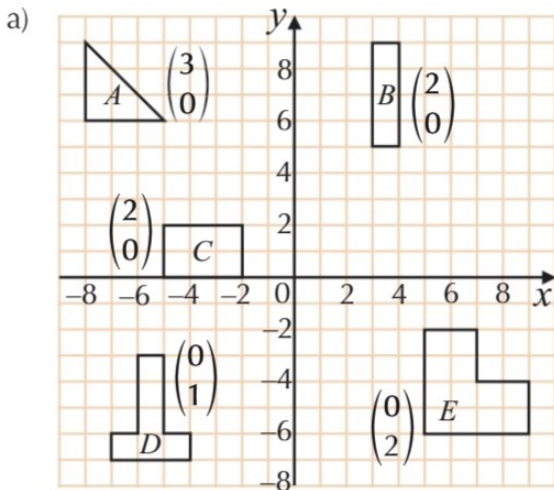
Name - _____

Start time - __ : __

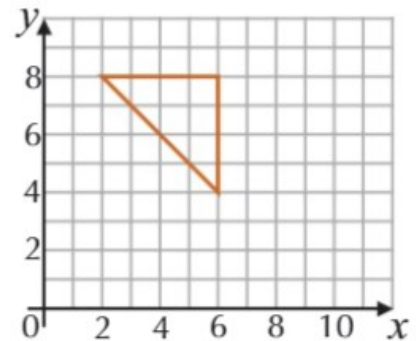
End time - __ : __

Solve the following

1. Copy the diagrams below, then translate each shape by the vector written next to it.



2. Translate the shape on the axes below by the vector $\begin{pmatrix} 5 \\ -3 \end{pmatrix}$



3. The triangle DEF has vertices D(-3, -2), E(1, -1) and F(0, 2). The triangle GHI has vertices G(0, 2), H(4, 3) and I(3, 6). Give the vector that describes the translation that maps DEF onto GHI.

4. Shape W is the image of shape Z after the translation $\begin{pmatrix} 1 \\ -4 \end{pmatrix}$. Write the translation that maps shape W onto shape Z as a vector.