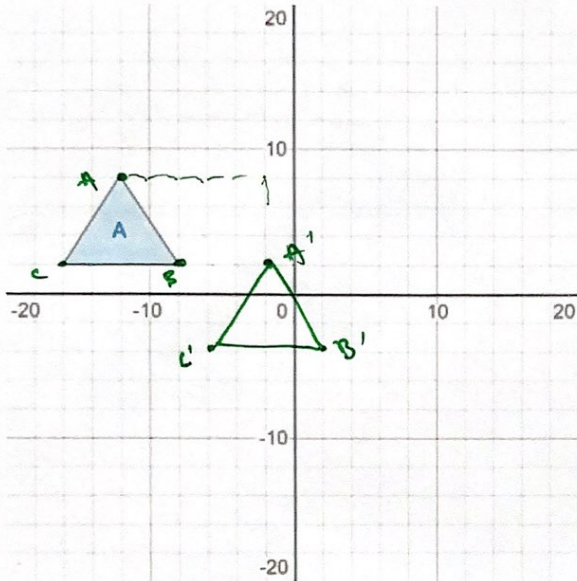


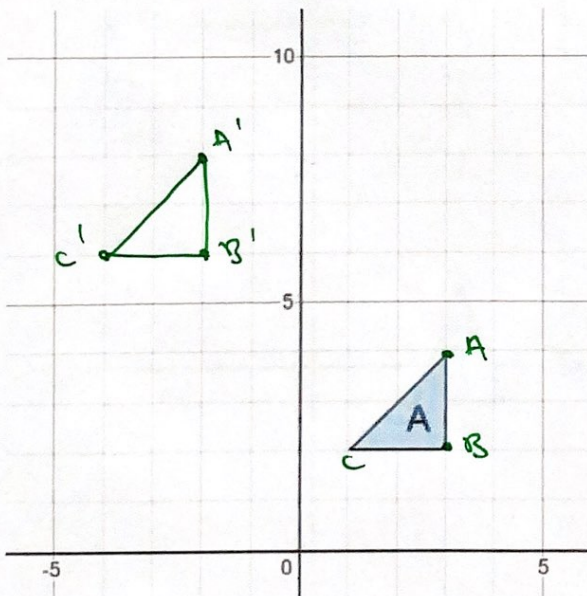


## QT Translations

1. Translate shape A by the vector  $\begin{pmatrix} 10 \\ -6 \end{pmatrix}$

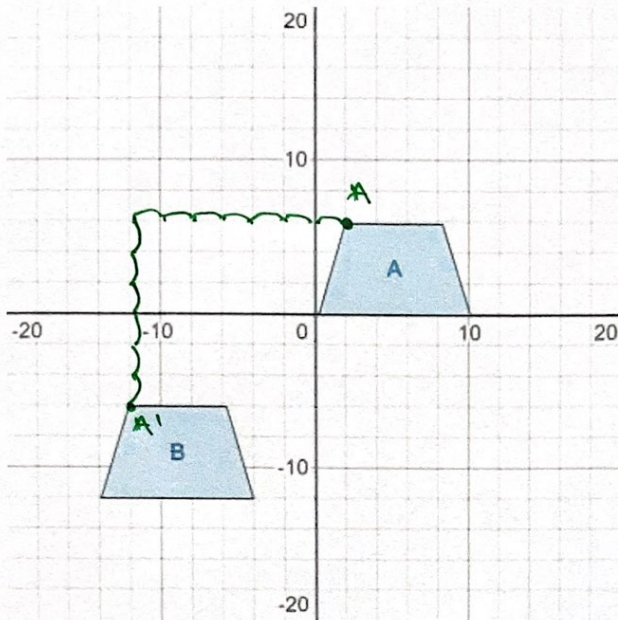


2. Translate shape A by the vector  $\begin{pmatrix} -5 \\ 4 \end{pmatrix}$



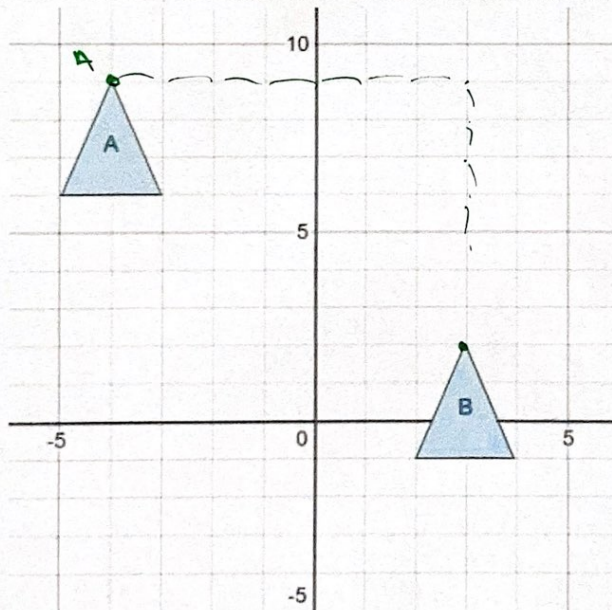


3. Describe fully the single transformation which maps shape A onto shape B.



$\begin{pmatrix} -14 \\ -12 \end{pmatrix}$   
transformed by  
vector  $\begin{pmatrix} -14 \\ -12 \end{pmatrix}$

4. Describe fully the single transformation which maps shape A onto shape B.



$\begin{pmatrix} 7 \\ -7 \end{pmatrix}$   
transformed by vector  
 $\begin{pmatrix} 7 \\ -7 \end{pmatrix}$