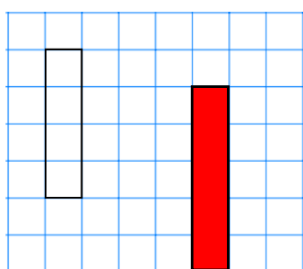
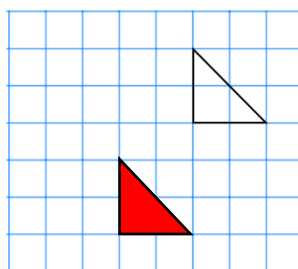


Translations

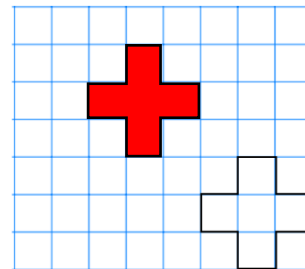
1. Translate $\begin{pmatrix} 4 \\ -1 \end{pmatrix}$



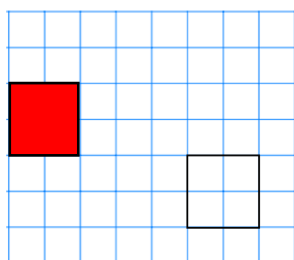
3. Translate $\begin{pmatrix} -2 \\ -3 \end{pmatrix}$



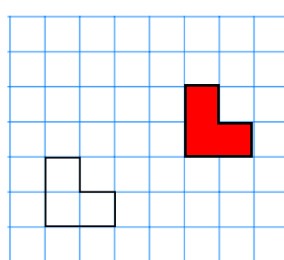
5. Translate $\begin{pmatrix} -3 \\ 3 \end{pmatrix}$



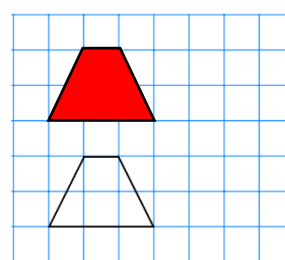
2. Translate $\begin{pmatrix} -5 \\ 2 \end{pmatrix}$



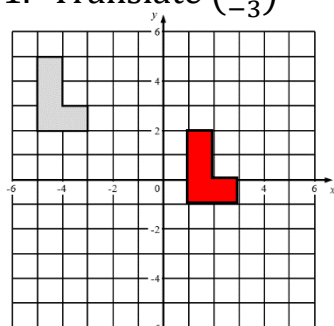
4. Translate $\begin{pmatrix} 4 \\ 2 \end{pmatrix}$



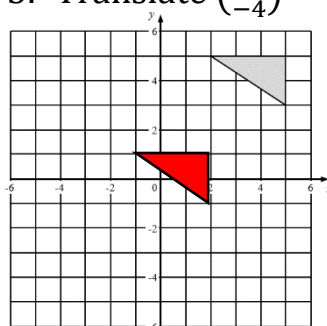
6. Translate $\begin{pmatrix} 0 \\ 3 \end{pmatrix}$



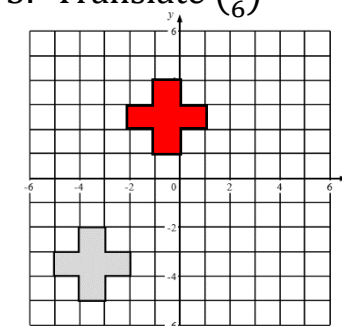
1. Translate $\begin{pmatrix} 6 \\ -3 \end{pmatrix}$



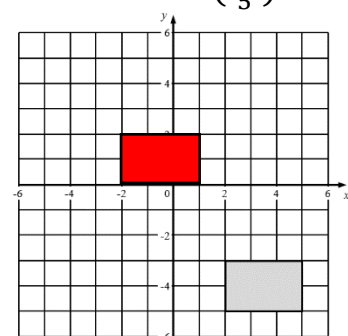
3. Translate $\begin{pmatrix} -3 \\ -4 \end{pmatrix}$



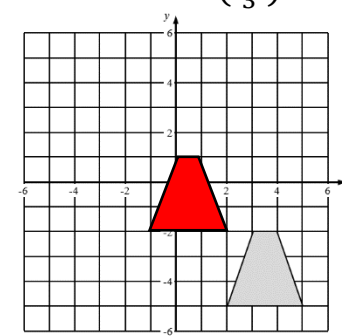
5. Translate $\begin{pmatrix} 3 \\ 6 \end{pmatrix}$



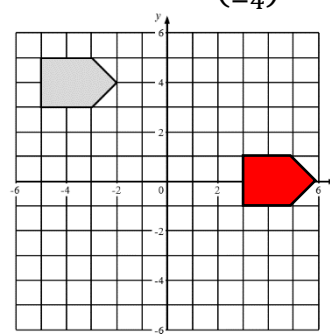
2. Translate $\begin{pmatrix} -4 \\ 5 \end{pmatrix}$



4. Translate $\begin{pmatrix} -3 \\ 3 \end{pmatrix}$

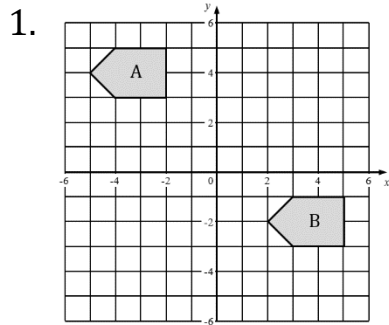


6. Translate $\begin{pmatrix} 8 \\ -4 \end{pmatrix}$

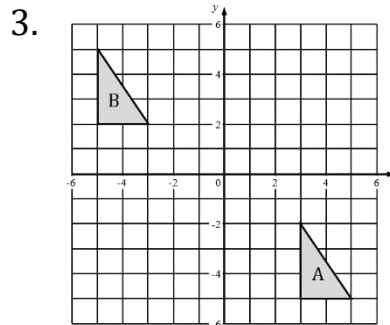


Translations

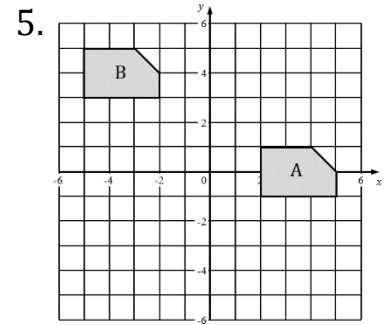
Describe the single transformation of A to B.



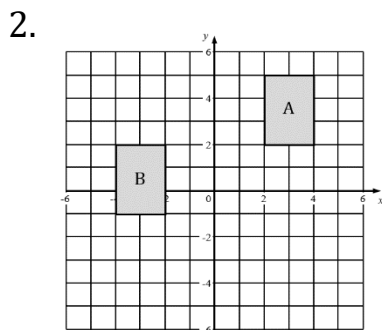
Translate $\begin{pmatrix} 7 \\ -6 \end{pmatrix}$



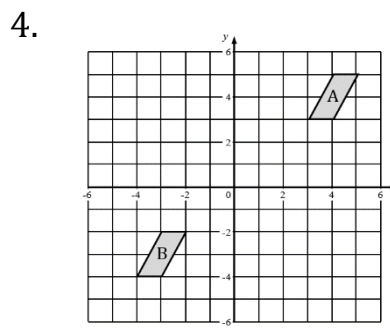
Translate $\begin{pmatrix} -8 \\ 7 \end{pmatrix}$



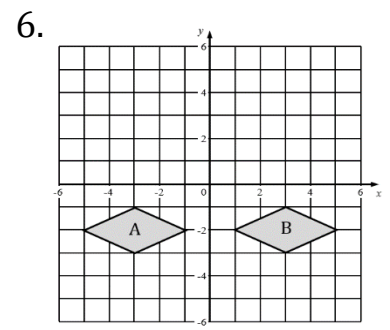
Translate $\begin{pmatrix} -7 \\ 4 \end{pmatrix}$



Translate $\begin{pmatrix} -6 \\ 3 \end{pmatrix}$



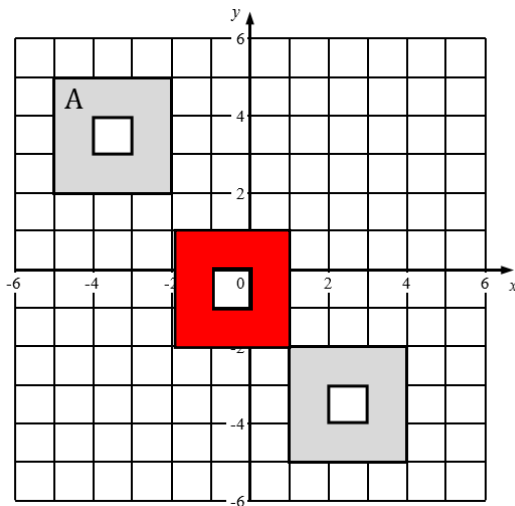
Translate $\begin{pmatrix} -7 \\ -7 \end{pmatrix}$



Translate $\begin{pmatrix} 6 \\ 0 \end{pmatrix}$

1. Natasha is doing her Maths homework.

Translate shape A by $\begin{pmatrix} 3 \\ -4 \end{pmatrix}$



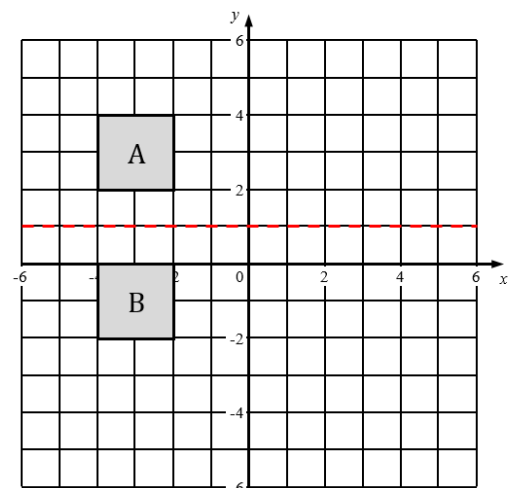
Can you spot any mistakes?

Draw the correct translation.

2. Ross says that the only transformation you could have from A to B is a reflection in the line $y = 1$.

Is he correct?

Explain your answer.



No you can also translate $\begin{pmatrix} 0 \\ -4 \end{pmatrix}$