

## Clive On Transformations 1 - Answers

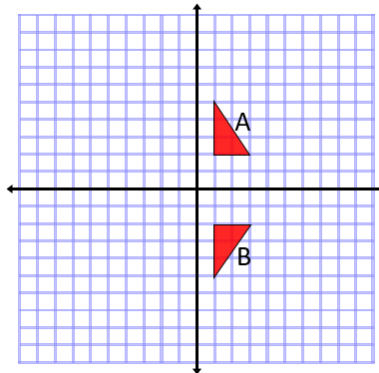
Clive is tackling his transformations homework and knows that he's made mistakes somewhere.

Can you spot and correct the mistakes Clive has made?

Can you explain what mistakes Clive has made, and maybe give him some tips so that he (hopefully) doesn't make them again?

### Question 1:

Describe fully the single transformation that maps shape A onto shape B:



*Clive's answer:*

Flipped over the  $x$ -axis.

*Your answer:*

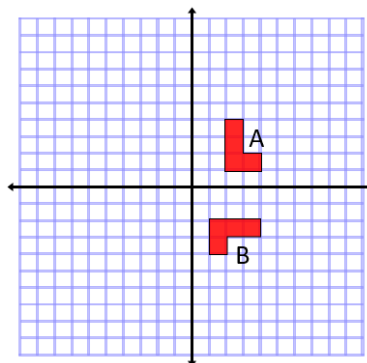
Reflection in the  $x$ -axis.

*What mistake has Clive made?*

He didn't use the mathematical term: reflected/reflection.

### Question 2:

Describe fully the single transformation that maps shape A onto shape B:



*Clive's answer:*

Rotated  $90^\circ$ , centre  $(0,0)$ .

*Your answer:*

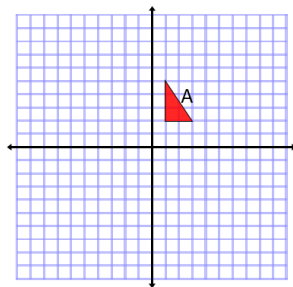
Rotation  $90^\circ$  clockwise, centre the origin or  $(0,0)$ .

*What mistake has Clive made?*

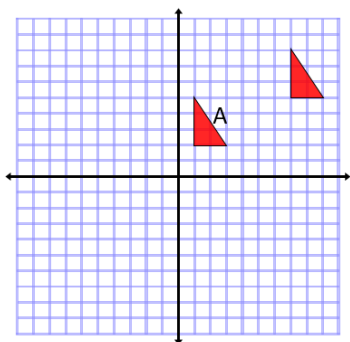
He didn't give a direction of the turn.

**Question 3:**

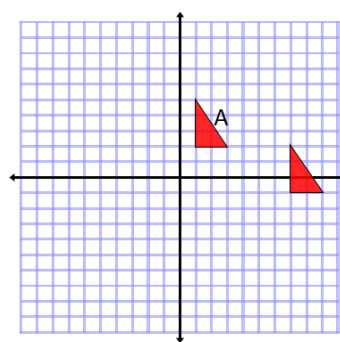
Translate shape A through the vector  $\begin{pmatrix} 6 \\ -3 \end{pmatrix}$



*Clive's answer:*



*Your answer:*

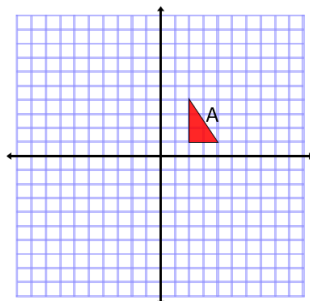


*What mistake has Clive made?*

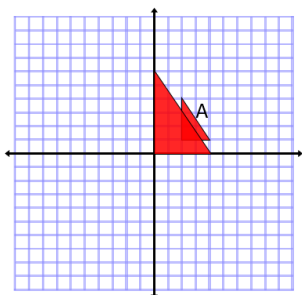
He has translated in the vector  $\begin{pmatrix} 6 \\ 3 \end{pmatrix}$  instead of  $\begin{pmatrix} 6 \\ -3 \end{pmatrix}$

**Question 4:**

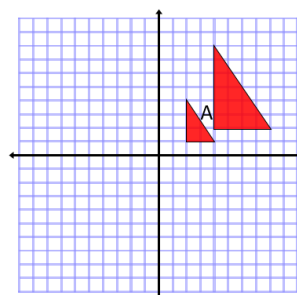
Enlarge shape A by scale factor 2, centre the origin.



*Clive's answer:*



*Your answer:*



*What mistake has Clive made?*

His shape must be twice as far away from the centre (not with a vertex at the centre) as well as being twice as big.