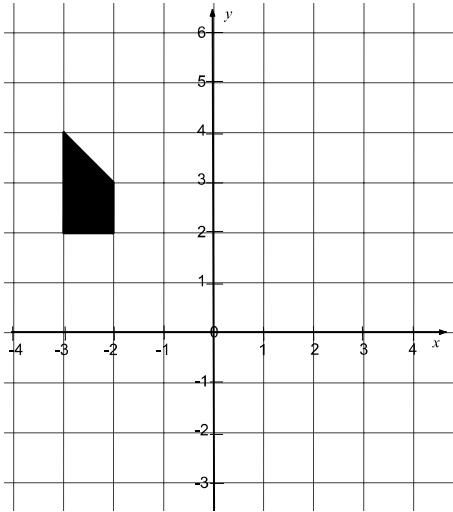


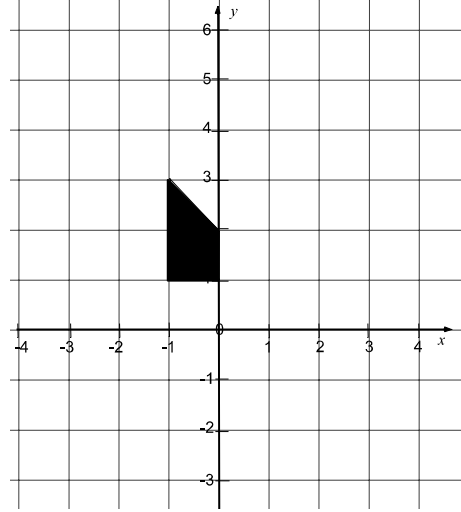
# Figure to Figure

1. The figure below is transformed to give a new image:

**Before:**



**After:**



Describe in words a single transformation that maps the original figure to the new image.

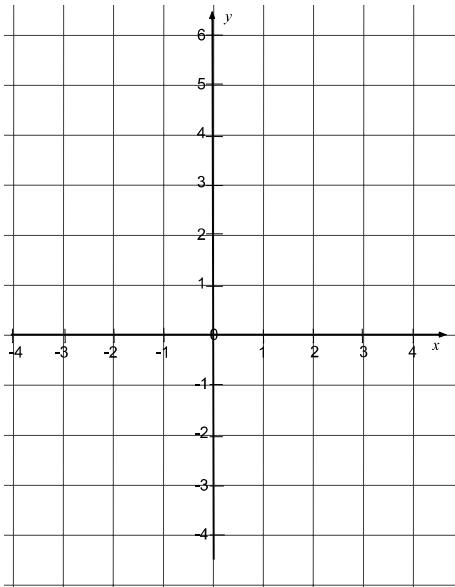
.....

.....

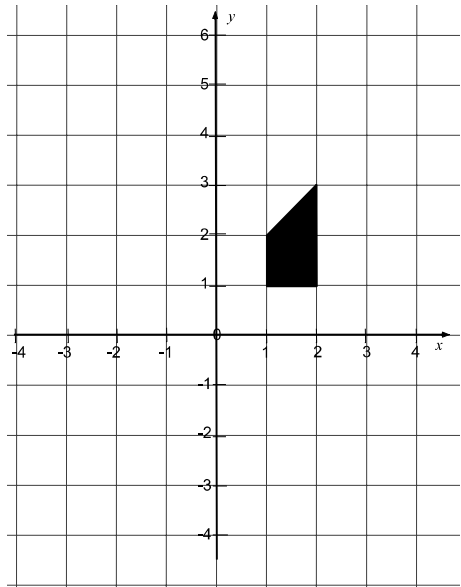
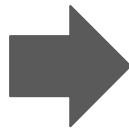
.....

2. A figure is reflected over the line  $y = -1$  to give the image below. Complete on the blank grid the position of the original figure before the transformation:

**Before:**

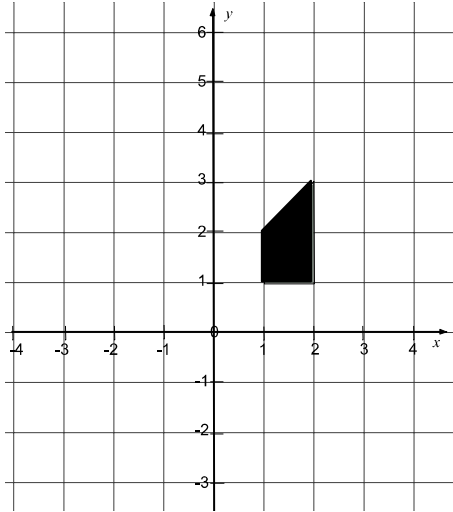


**After:**

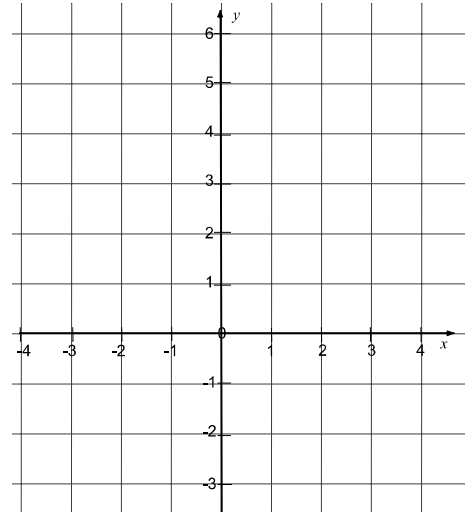
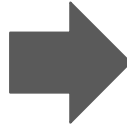


3. The figure below is rotated through  $90^\circ$  clockwise around  $(0,0)$ :

**Before:**



**After:**



Complete on the blank grid the image after the transformation and describe the effect of the transformation on  $(x,y)$ :

$$(x, y) \rightarrow (\underline{\quad}, \underline{\quad})$$

Explain your answer:

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