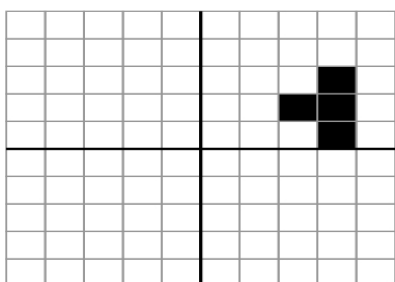


# Transformations

## Rotation

1. Label the x and y-axes below from -5 to 5.
  - a. Rotate the shape through  $90^\circ$  clockwise with centre (0,0). Label this image A.
  - b. Rotate the shape through  $90^\circ$  anticlockwise with centre (1,1). Label this image B.
  - c. Rotate the shape through  $180^\circ$  clockwise with centre (3,0). Label this image C.

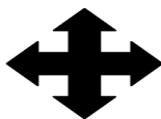


2. For each shape, write down it's
  - (i) number of lines of symmetry
  - (ii) order of rotational symmetry

a.



b.



c.



3. Draw **different** shapes with the following orders of rotational symmetry:

a. 3

b. 2

d. 4