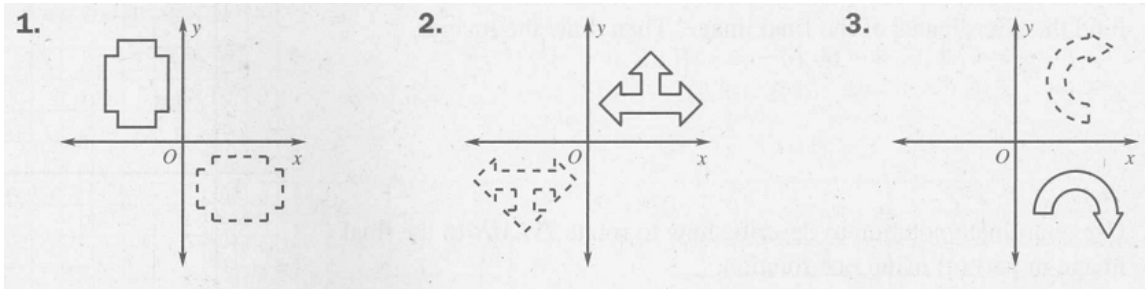


Rotations

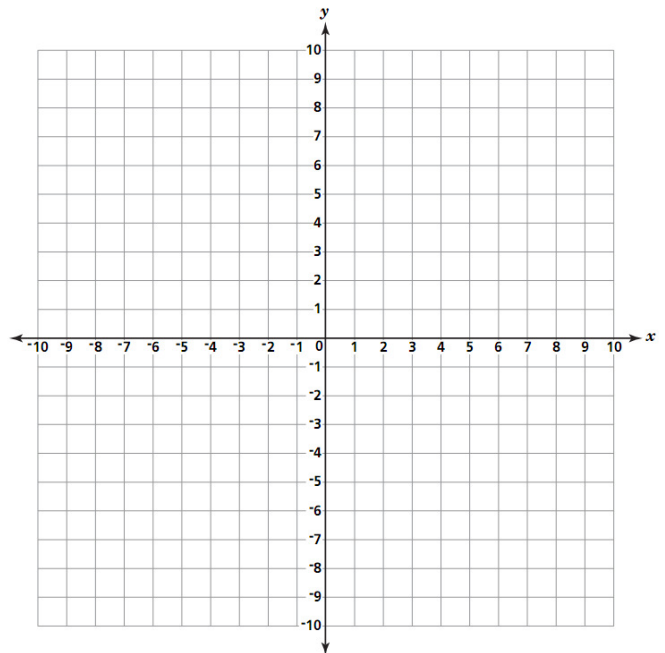
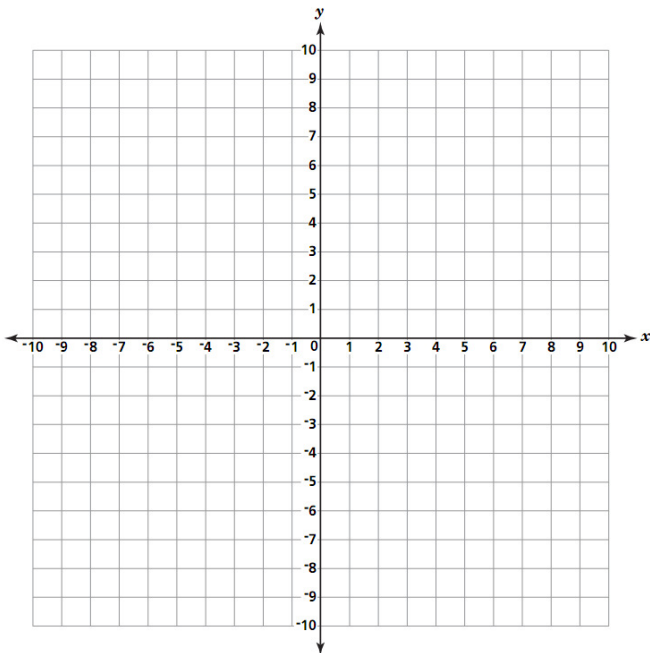
Tell whether the transformation is a rotation about the origin. If so, give the angle and direction of rotation.



The vertices of a polygon are given. Draw the polygon. Then draw the image after the specified rotation. Find the coordinates of the image.

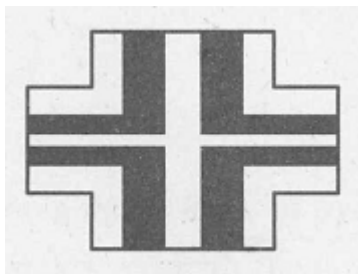
4. $A(-6, 2), B(-5, 4), C(-2, 3), D(-5, 1)$
 180° rotation

5. $A(0, 0), B(0, 3), C(4, 4), D(5, 0)$
 90° clockwise rotation

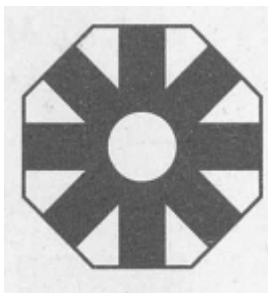


Tell whether the figure has rotational symmetry. If so, give each angle and direction of rotation that produces rotational symmetry.

6.



7.

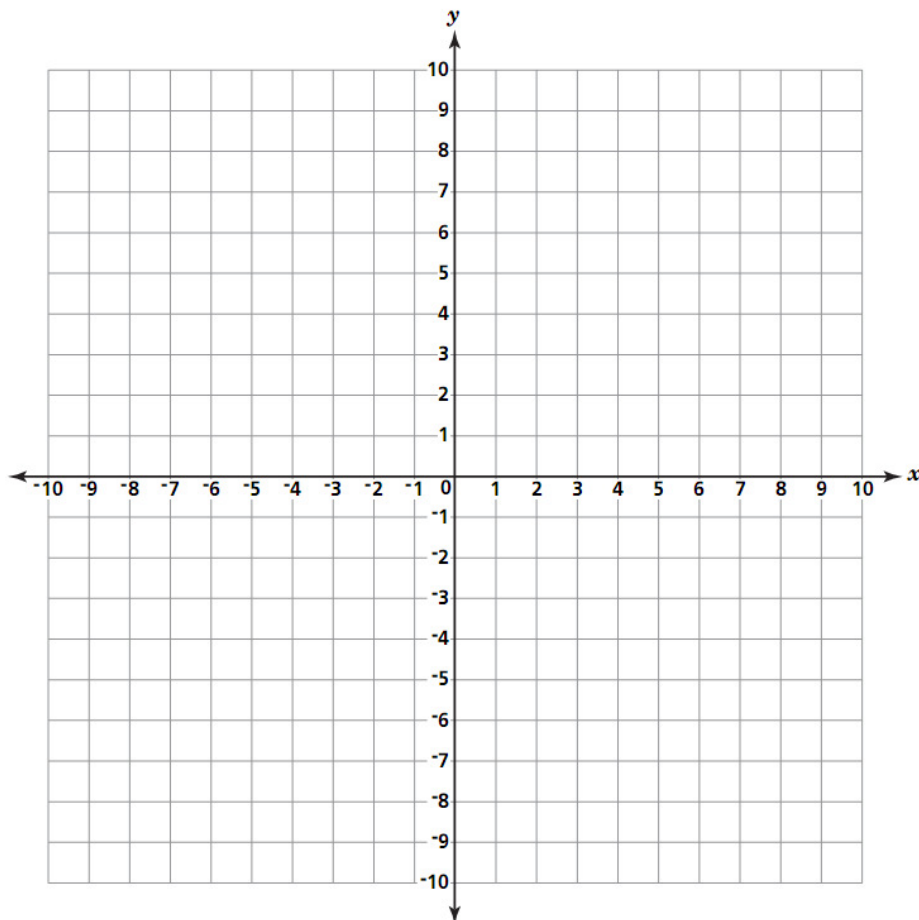


8.



9. The vertices of a polygon are given. Draw the polygon. Then draw the image after a rotation of 90° counterclockwise. Find the coordinates of the image. Then reflect the **image** in the x-axis. Find the coordinate of the final image.

$W(-4, -6), X(-4, -4), Y(-2, -2), Z(-2, -8)$



W' (____, ____)

X' (____, ____)

Y' (____, ____)

Z' (____, ____)

W'' (____, ____)

X'' (____, ____)

Y'' (____, ____)

Z'' (____, ____)