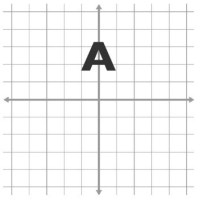
7. 4 Rotations (Turns)

Objective:
To perform rotations in the coordinate plane.

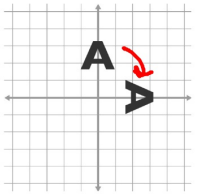
A figure can also turn on a point away from its original position. It almost looks like a clock hand turning around the face of a clock. This is called a ROTATION about a point.

clockwise shown

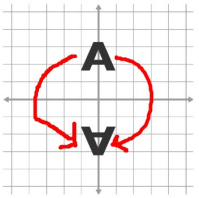
Original image



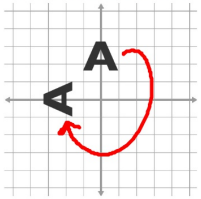
90° rotation (about the origin)



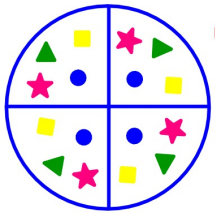
180° rotation (about the origin)

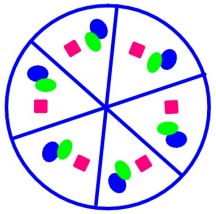


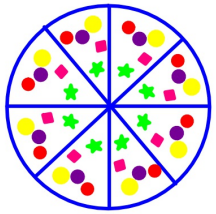
270° rotation (about the origin)



Images of a kaleidoscope are produced by compositions of reflections in intersecting mirrors. For each image, determine the angle between the mirrors.
(Hint: 360° in a circle)

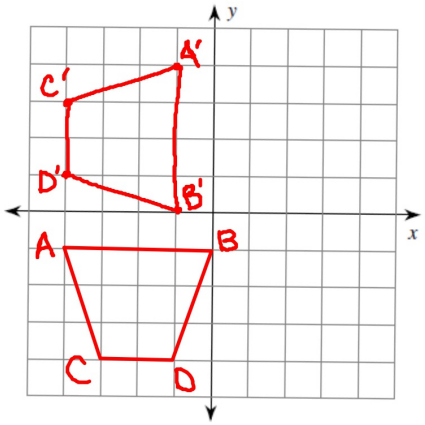
1.  90°

2.  60°

3.  45°

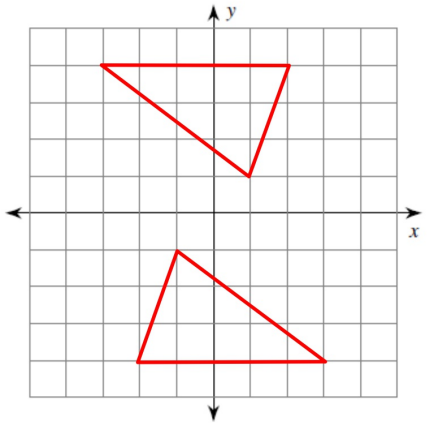
Graph the rotation of the image

4. 90° clockwise about the origin



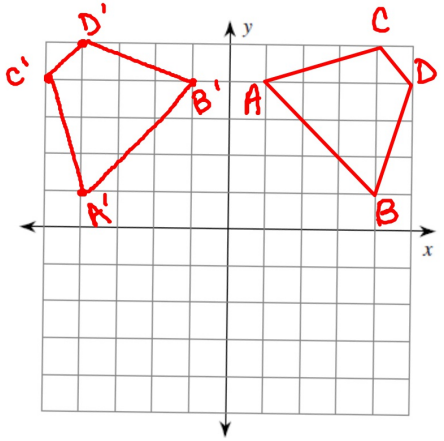
Graph the rotation of the image

5. 180° about the origin



Graph the rotation of the image

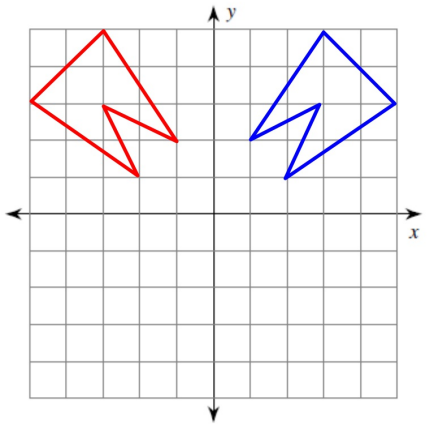
6. 90° counterclockwise about the origin



Describe the rotation of the image from red to blue

90° rotation clockwise about the origin

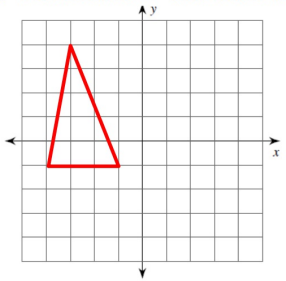
7.



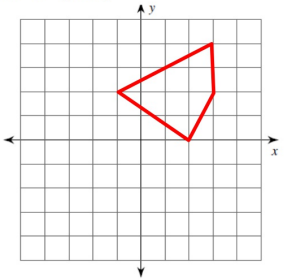
Rotations Worksheet

Graph the image of the transformation given & give coordinates of the new image

1. reflection: across the y-axis



2. translation: left 2 units, down 1 unit



3. rotation: 90° clockwise about the origin