

Check

4. What is the angle of rotation symmetry for a shape with each order of rotational symmetry?

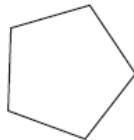
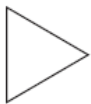
- a) 3
- b) 5
- c) 9
- d) 12

5. What is the order of rotational symmetry for each angle of rotation symmetry?

- a) 60°
- b) 20°
- c) 45°
- d) 36°

6. What is the order of rotational symmetry and angle of rotation symmetry for each regular polygon?

- a) an equilateral triangle
- b) a regular pentagon



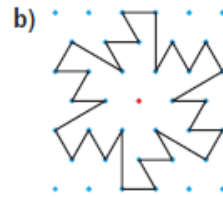
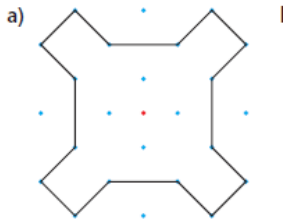
c) a square



d) a regular octagon



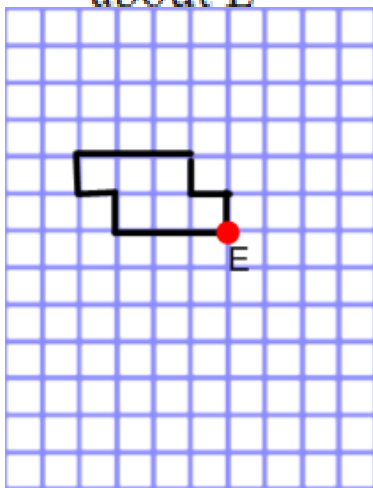
8. Does each shape have rotational symmetry about the red dot? If it does, state the order and the angle of rotation symmetry.



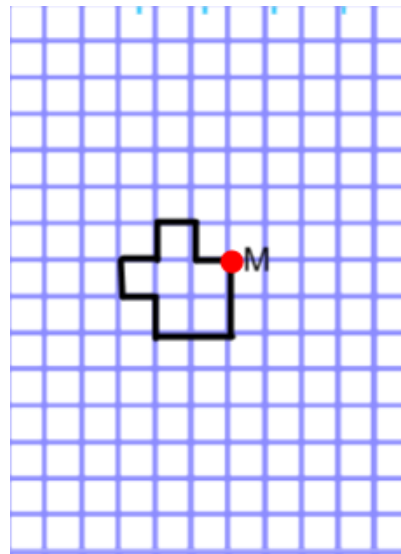
.....

9. Copy each shape on grid paper. Draw the rotation image after each given rotation.

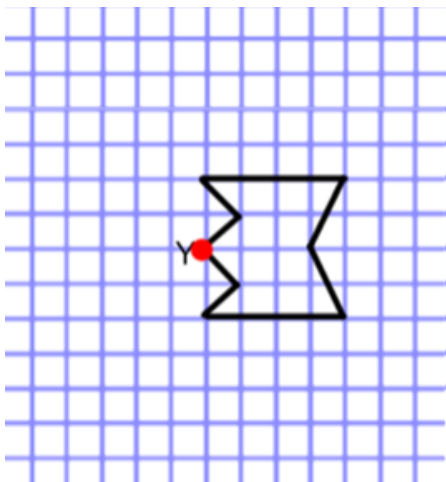
a) 90° clockwise
about E



b) 180° about M



c) 270° counter clockwise about Y

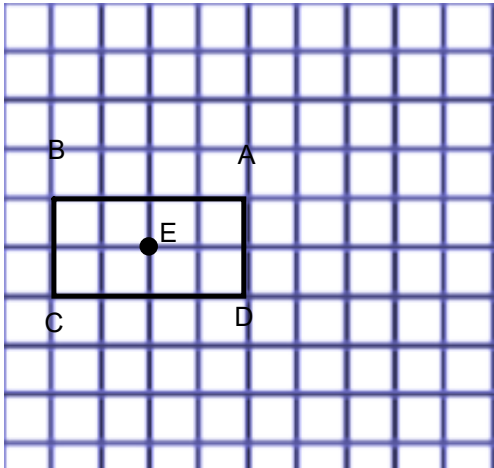
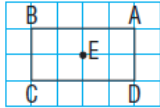


13. **Assessment Focus** Rotate each shape.

a) rectangle ABCD

i) 180° about vertex A (Blue)

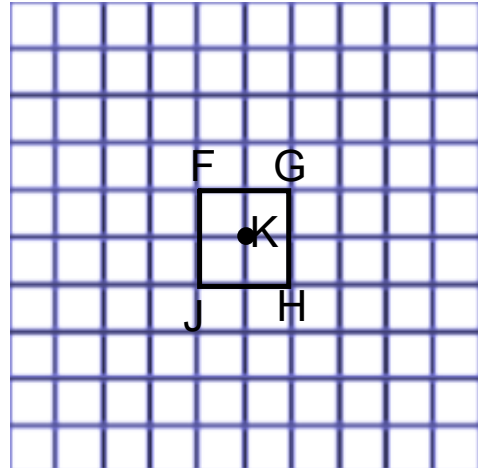
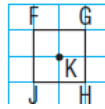
ii) 180° about centre E (Red)



b) square FGHI counterclockwise through

i) 90° about vertex F (Blue)

ii) 90° about centre K (Red)



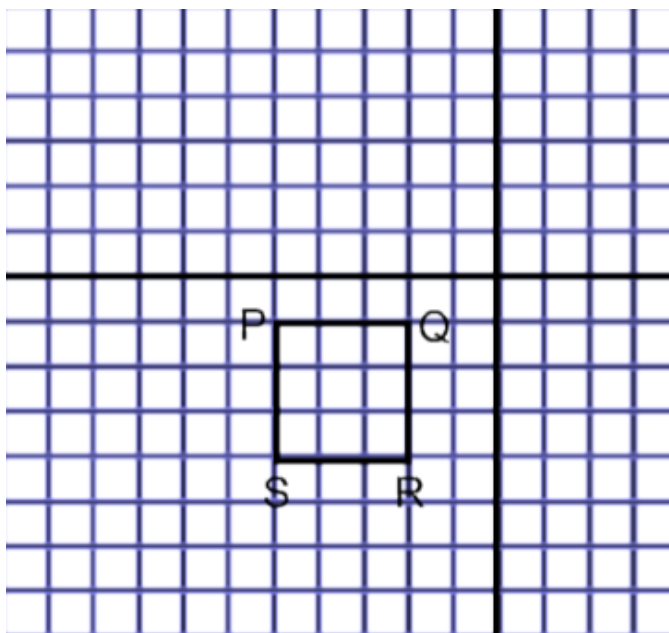
14. a) Rotate square PQRS clockwise about vertex P through:

i) 90°
(Blue)

ii) 180°
(Red)

iii) 270°
(Yellow)

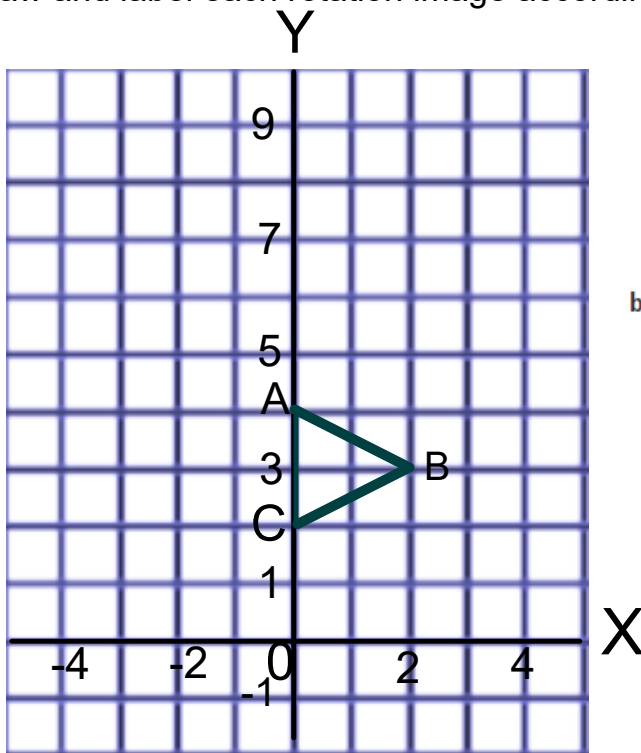
Draw and label each rotation image according to color.



15. Triangle ABC is part of a larger shape that is to be completed by three rotations.

- a) Rotate $\triangle ABC$ clockwise about vertex C through: i) 90° (Blue) ii) 180° (Red) iii) 270° (Yellow)

Draw and label each rotation image according to color.



- b) List the coordinates of the vertices of the larger shape formed by the triangle and its images. Describe any rotational symmetry.