

## Chapter—14

# Symmetry

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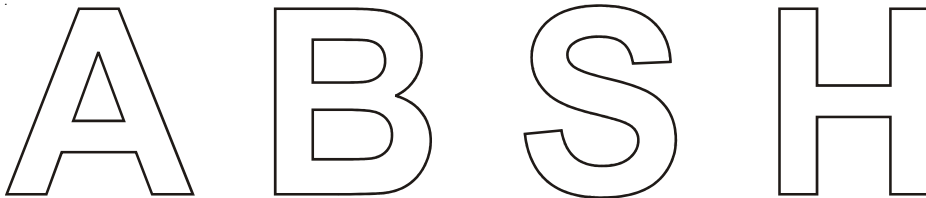
1. Fill in the blanks :

- (i) Rotation turns an object about a fixed point. This fixed point is called .....
- (ii) Order of rotational symmetry of a circle is .....
- (iii) Rhombus is a figure that has ..... lines of symmetry and has a rotational symmetry of order .....
- (iv) ..... is a figure that has neither a line of symmetry nor a rotational symmetry.

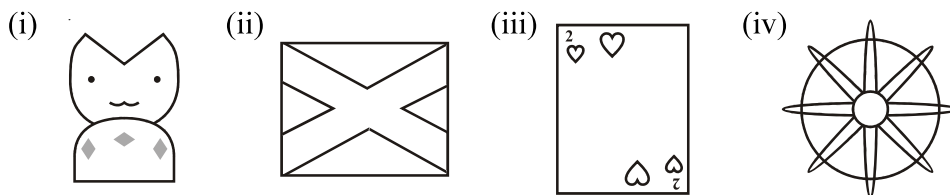
2. State whether the given statements are True or False :

- (i) A regular pentagon has no lines of symmetry.
- (ii) Mirror reflection leads to symmetry always.
- (iii) The number of lines of symmetry of a regular polygon is equal to the vertices of the polygon.
- (iv) An angle has two line symmetry.

3. Draw all the lines of symmetry for the following letters if they exist.



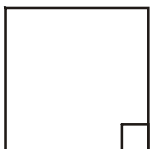
4. In each of the following figures write the number of lines of symmetry and order of rotational symmetry.



5. Angle of rotation of a figure is  $40^\circ$ . What is the number of lines of symmetry?

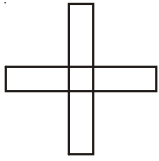
6. What is the centre of rotation of an equilateral triangle?

7. In the given square



- (i) Find the number of lines of symmetry.
- (ii) What is the order of rotational symmetry?

8. In the given figure :

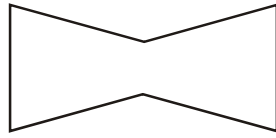


- (i) Find the order of rotational symmetry.
- (ii) Find the degree measure of the angle of rotation.

9. Draw all lines of symmetry for each of the following figures given below :



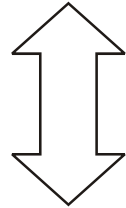
(i)



(ii)

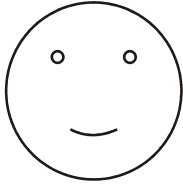


(iii)

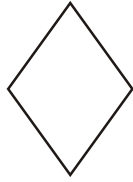


(iv)

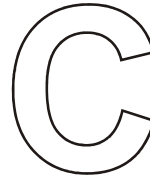
10. Tell whether each figure has rotational symmetry or not.



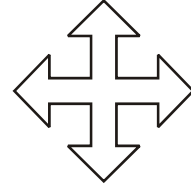
(i)



(ii)



(iii)



(iv)