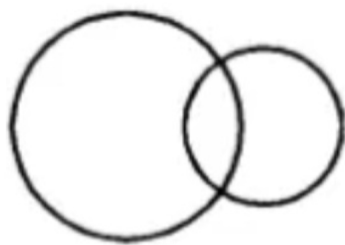
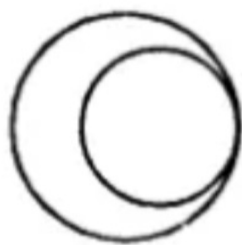


Question 1.

Draw the line or lines of symmetry, if any, of the following shapes and count their number :



(i)



(ii)



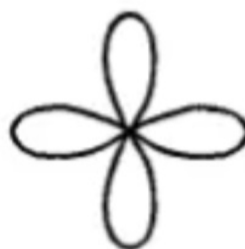
(iii)



(iv)

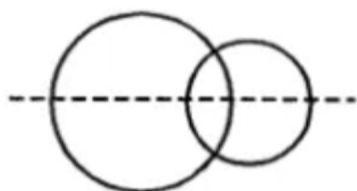


(v)

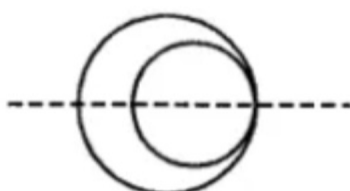


(vi)

Solution:



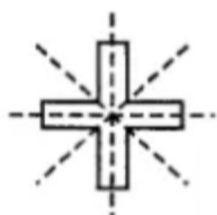
(i) (one)



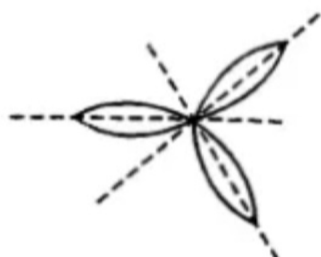
(ii) (one)



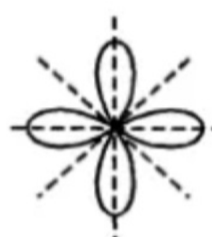
(iii) (none)



(iv) (four)



(v) (three)



(vi) (four)

Question 2.

For each of the given shape in question 1, find the order of the rotational symmetry (if any).

Solution:

- (i) None
- (ii) None
- (iii) Two
- (iv) Four
- (v) Three
- (vi) Four

Question 3.

Construct a rectangle ABCD such that $AB = 4.5$ cm and $BC = 3$ cm. Draw its line (or lines) of symmetry.

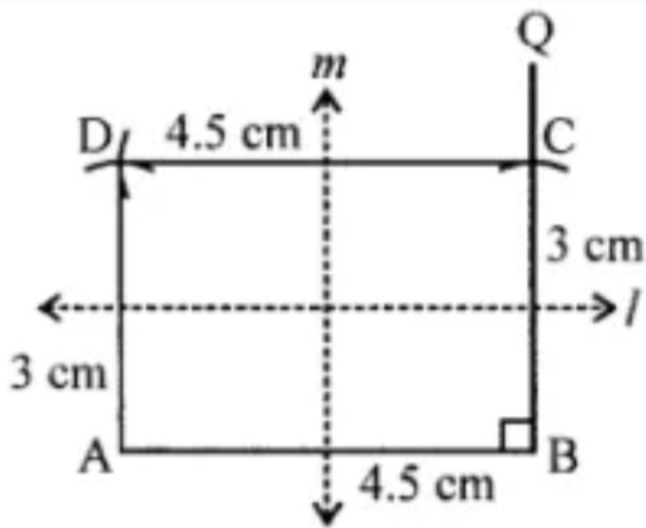
- (i) Draw a line $AB = 4.5$ cm.
- (ii) Draw a line BQ from point B making an angle of 90° .
- (iii) Taking B as centre and radius = 3 cm, mark an arc on BQ, name it as C.
- (iv) As we know, opposite sides of rectangle are equal.

Therefore from point C. As a centre and radius = 4.5 cm,

draw an arc and with A as centre and 3 cm as radius, make another as C, cutting the previous arc at point D.

- (v) Join DC and DA.
- (vi) ABCD is a required rectangle.

Lines of symmetry:



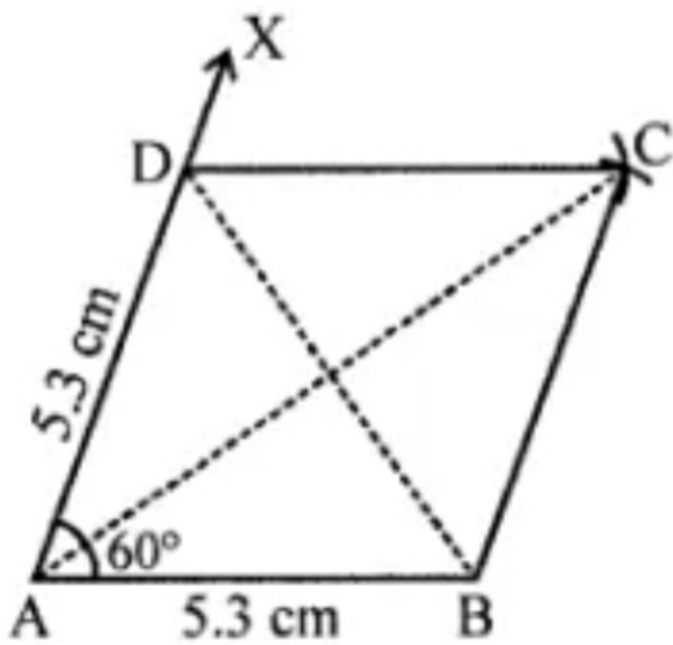
It has 2 lines of symmetry,
the lines joining the midpoints of opposite sides.

Question 4.

Construct a rhombus ABCD with $AB = 5.3$ cm and $\angle A = 60^\circ$. Draw its line (or lines) of symmetry.

Solution:

- (i) Draw line segment $AB = 5.3$ cm.
 - (ii) Construct $\angle BAX = 60^\circ$.
 - (iii) With A as centre, radius = 5.3 cm draw an arc on AX.
 - (iv) Mark the point of intersection = D.
 - (v) With D as the centre and radius = 5.3 cm, draw an arc.
 - (vi) With B as centre and same radius, draw another arc, such that it intersects the previous at C.
 - (vii) Join CD and CB.
- ABCD is a required rhombus.



Lines of symmetry in rhombus = 2,
the diagonals of the rhombus.