18 SYMMETRY, REFLECTION AND ROTATION
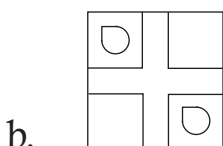
Q1. **Name the following:**

    a.   Line of symmetry in a circle   : _____

    b.   Line of symmetry of an angle   : _____

    c.   Line of symmetry in a rhombus   : _____

    d.   Line of symmetry of a line segment   : _____

Q2. **Find the number of lines of symmetry and point of symmetry in each of the following:**

Geometrical figure	Number of Lines of symmetry	Number of Points of symmetry
Equilateral triangle		
Angle		
Rhombus		
Square		

Q3. **Draw the line(s) of symmetry for the following figures (if any):**

    a.

    b.

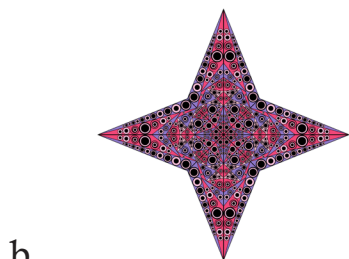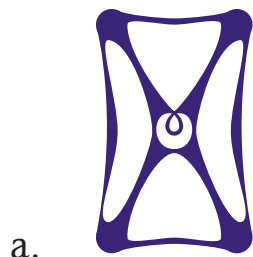**Q4.** **Draw the lines of symmetry for each of the English alphabets given below:**
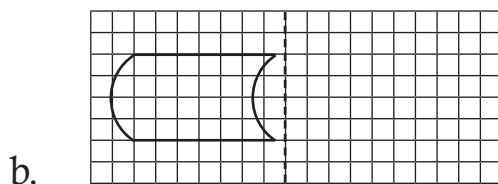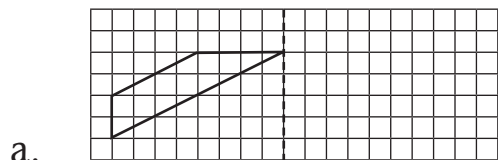
    K   V   W   C

Q5. **Which of the following numbers are symmetrical? Tick the correct option.**

    a.   8   : (Yes/No)

    b.   0   : (Yes/No)

    c.   6   : (Yes/No)

**Q6.** **Draw the line of symmetry of the following figures:**

a.

b.

Q7. **The dotted line shows the axis of reflection. Draw the mirror image or reflection of the following diagrams:**

a.

b.

Q8. **Find the order of rotational symmetry of the following shapes:**

Shape	Order of rotational symmetry
a. An equilateral triangle:	_____
b. A square	_____
c. A line segment 5 cm long	_____

Q9. **How will the following figure look like after taking the following turns?**
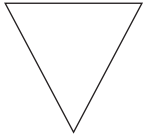
a. a quarter–turn clockwise

b. a half–turn clockwise

Draw the resultant figures.

a. After taking a quarter–turn clockwise : _____

b. After taking a half–turn clockwise : _____

Q10. **The letter Z is rotated clockwise till the image looks like the letter N. Choose the correct angle of rotation.**
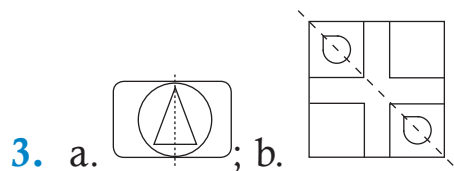
a. 90°

b. 180°

c. 360°

Answer: _____

1. a. diameter; angle–bisector; c. diagonals; d. perpendicular bisector

2.

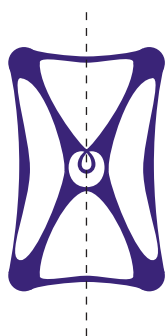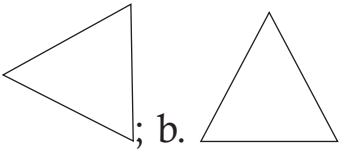| Geometrical figure	Number of Lines of symmetry	Number of Points of symmetry
Equilateral triangle	3	0
Angle	1	0
Rhombus	2	1
Square	4	1

3. a. ; b.

4.
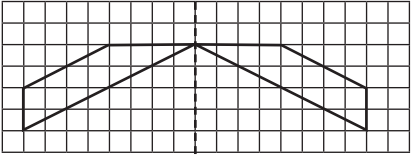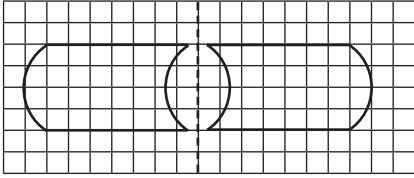
5. a. Yes; b. Yes; c. No

6. a.

b.
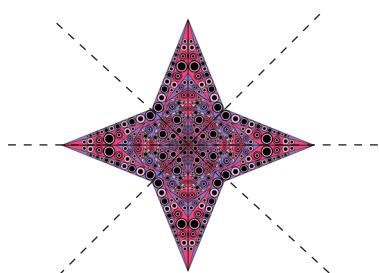
7. a. ; b.

8.

Shape	Order of rotational symmetry
a. An equilateral triangle:	3
b. A square	4
c. A line segment 5 cm long	2

9. a. ; b.

10. (a)