

ACTIVITY -16

TOPIC: SYMMETRY

TITLE: LINES OF SYMMETRY

1. **What we have to do?**

To find the lines of symmetry of regular polygons.

2. **What is required?**

Coloured sheets, sketch pens, a pair of scissors and a geometry box.

3. **How much time is required?**

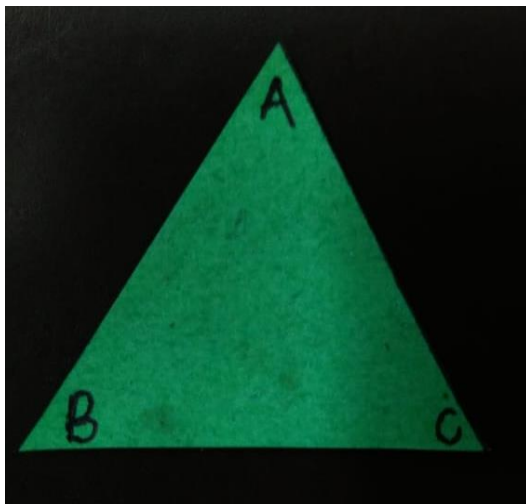
30 minutes

4. **What do you need to know?**

Knowledge about regular polygons and symmetry.

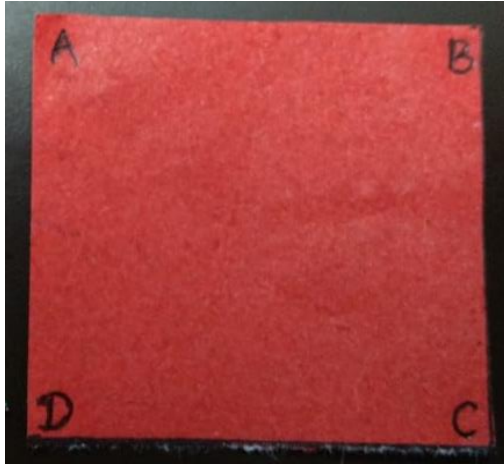
5. **How will you proceed?**

- a. Take a coloured sheet and draw a 3- sided and 4 - sided regular polygons.



Equilateral Triangle

Fig.1



Square

Fig.2

- b. In an equilateral triangle ABC, fold the triangle through each vertex(one by one) such that vertex B coincides with vertex C, vertex C coincides with vertex A, vertex A coincides with vertex B.
- c. Now, unfold the triangle and draw lines 1, 2 and 3 along the crease as shown in the Fig.3

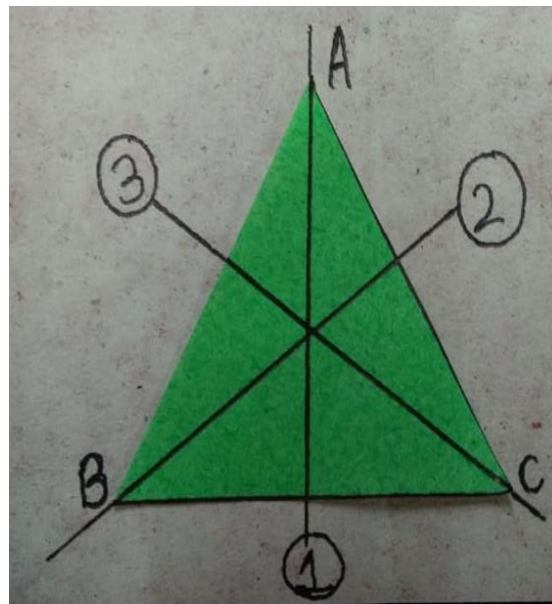


Fig.3

d. In the same way, a square has four lines of symmetry as shown in Fig.4

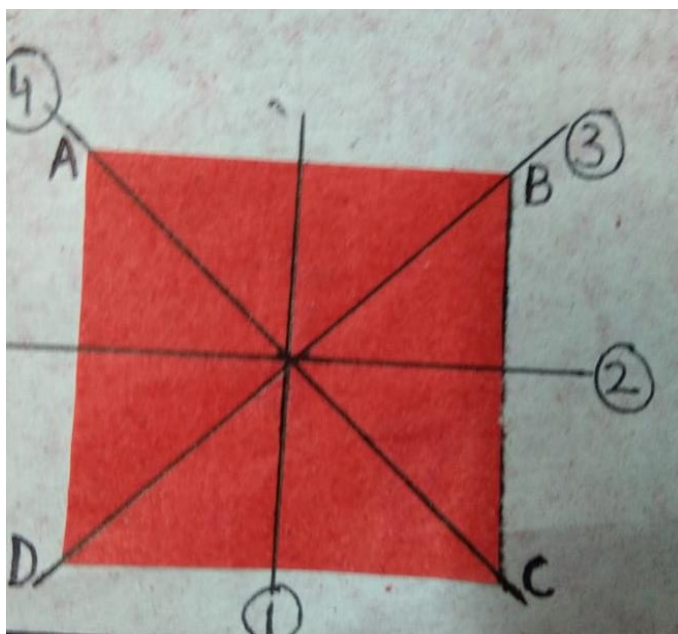


Fig.4

6. **What have you observed?**

- No. of lines of symmetry in 5 – sided regular polygon = _____
- No. of lines of symmetry in 7 – sided regular polygon = _____
- No. of lines of symmetry in 9 – sided regular polygon = _____.

7. **What have you learnt?**

8. **Extended Activity**

Observe your surroundings and collect some symmetrical objects.

Real life Applications:

The above concept is used in our day-to-day life incidents viz. in cutting cakes, construction, Painting, monuments etc....