

## Symmetry

1. If a line divides a figure into two parts such that when the figure is folded about the line the two parts of the figure coincide, then the line is known as the line of symmetry. The line of symmetry is also known as the axis of symmetry.
2. A figure is said to have rotational symmetry if it fits on to itself more than once during a full turn i.e. rotation through  $360^\circ$ .
3. The number of times a figure fits onto itself in one full turn is called the order of rotational symmetry.
4. Following table provides the details of linear and rotational symmetries of various figures:

| Figure               | Line symmetry | No. of Line symmetry | Rational Symmetry | Centre of Rotation        | Order of Rotational Symmetry |
|----------------------|---------------|----------------------|-------------------|---------------------------|------------------------------|
| Square               | Yes           | 4                    | Yes               | Intersection of diagonals | 4                            |
| Rectangle            | Yes           | 2                    | Yes               | Intersection of diagonals | 2                            |
| Equilateral Triangle | Yes           | 3                    | Yes               | Centroid                  | 3                            |
| Regular Hexagon      | Yes           | 6                    | Yes               | Centre of the hexagon     | 6                            |
| Circle               | Yes           | Unlimited            | Yes               | Centre                    | Unlimited                    |
| Parallelogram        | Yes           | 2                    | Yes               | Intersection of diagonals | 2                            |
| Rhombus              | Yes           | 2                    | Yes               | Intersection of diagonals | 2                            |