

MATHS

Symmetry

1. If we fold a picture along a line in such a way that the left and right halves match exactly, then the picture is said to have the line symmetry and that line is called axis of symmetry/ line of symmetry.
2. A figure may have no line of symmetry, only one line of symmetry, two lines of symmetry or multiple lines of symmetry.
3. A scalene triangle has no line of symmetry.
4. An isosceles triangle has only one line of symmetry.
5. A rectangle has two lines of symmetry.
6. An equilateral triangle has three lines of symmetry.
7. A square has 4 lines of symmetry.
8. A circle has many lines of symmetry.
9. The line of symmetry is closely related to mirror reflection.
10. Steps to find the image of a point, say P, with respect to line l, after reflection:
 - i. Draw a perpendicular line 'm' on the line 'l' through the point P.
 - ii. Mark a point P' on the line 'm' such that $OP = OP'$. Now, P' is the image of the point P.

Note that the distance of the image from the mirror line is equal to distance of the object from the mirror line.

