



## Chapter 13

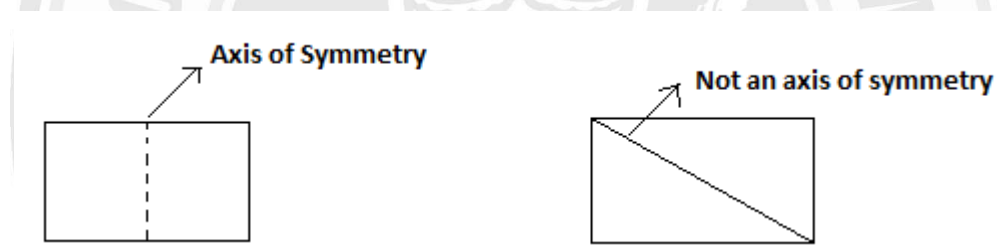
### Symmetry

#### NOTES:

Symmetry is quite a common term used in day to day life when we see certain figures with evenly balanced proportions, we say, “They are symmetrical”.

Symmetry:

An object is said to have symmetry if it has identical parts that coincide with each other when you flip/slide or turn it.



Facts that matter:

1. A Symmetrical figure may have one, two or multiple lines of symmetry.
2. A circle has countless line of symmetry.
3. An equilateral triangle has three lines of symmetry.
4. An isosceles triangle has only one line of symmetry.
5. A scalene triangle has no line of symmetry.
6. The mirror reflection and the line of symmetry are related to each other.

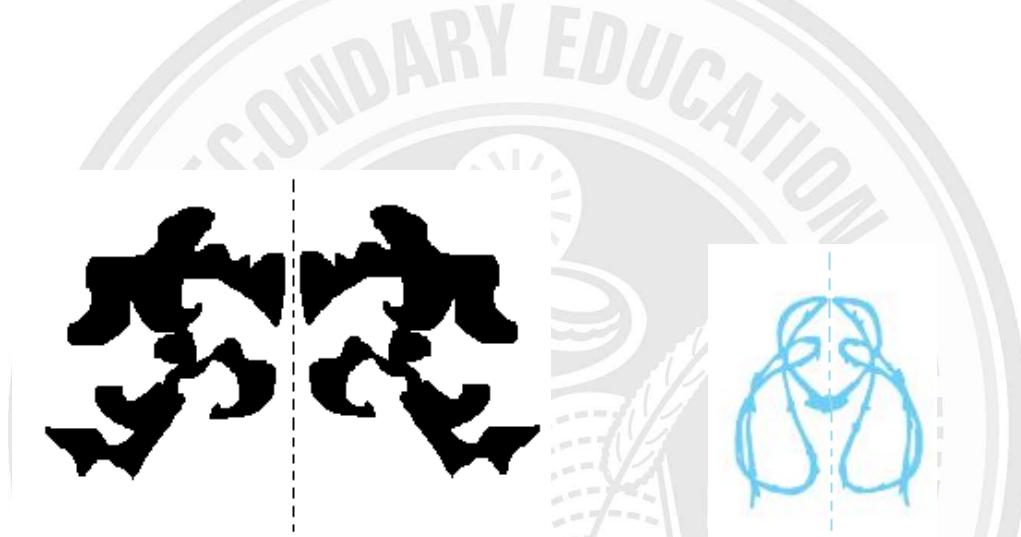
We Know that:

There are many figures or objects which when folded along a straight line are divided equally into two identical halves such that one part coincides with the other. Such figures are called symmetrical figures.

The line which divides a symmetrical figure into two equal parts is called line of symmetry. A symmetrical figure may have more than one line of symmetry.

### Making Symmetrical Figure:

Fold a piece of paper in half. Spill a few drops of ink on one half side. Press the halves together. The resulting figure is symmetric. This figure is symmetric about the fold which is the line of symmetry. Similarly, take a short length of a string dipped in ink place it on one half of the folded paper. Now press the two halves. In this case also, we get symmetrical figures.



In the above cases the two halves are mirror images of each other. If a mirror is placed on the fold, we get the image of one side of the figure. Such that it falls exactly on the other side of the picture. The mirror line (i.e. the fold) is a line of symmetry.



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