

Math-Magic
Class- III

Chapter-1
Where to look from

In this chapter you will learn about:

1. When we look things or objects from different sides, they look different from each side.
2. How with the help of dots we can create beautiful patterns, shapes and designs.
3. Mirror Halves.
4. Symmetrical and asymmetrical figures and line of symmetry.

Introduction

An object or a person can look different from different sides. As we can see in this picture →



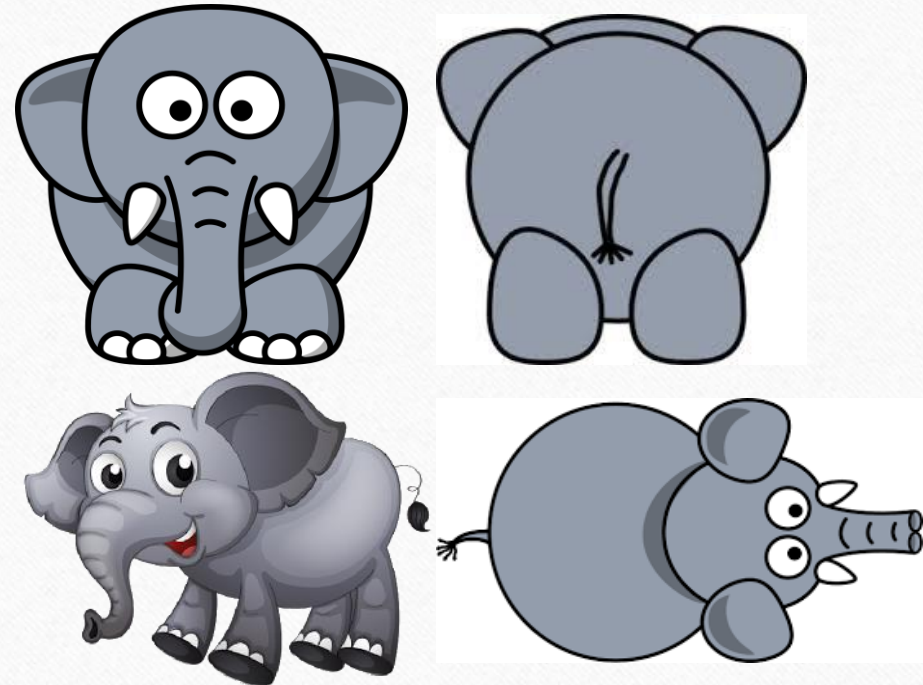
A Car

There are many other examples like:

A Cap



An Elephant

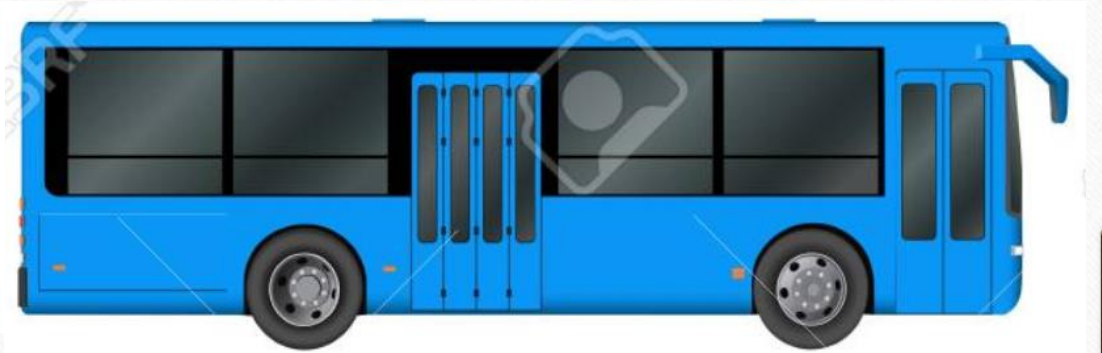


There are mainly four views in which we look at any object:

Top View



Side View



Front View



Back view



A Bus

Can you tell from which view you will be looking to see these things or person this way?



Side



Top



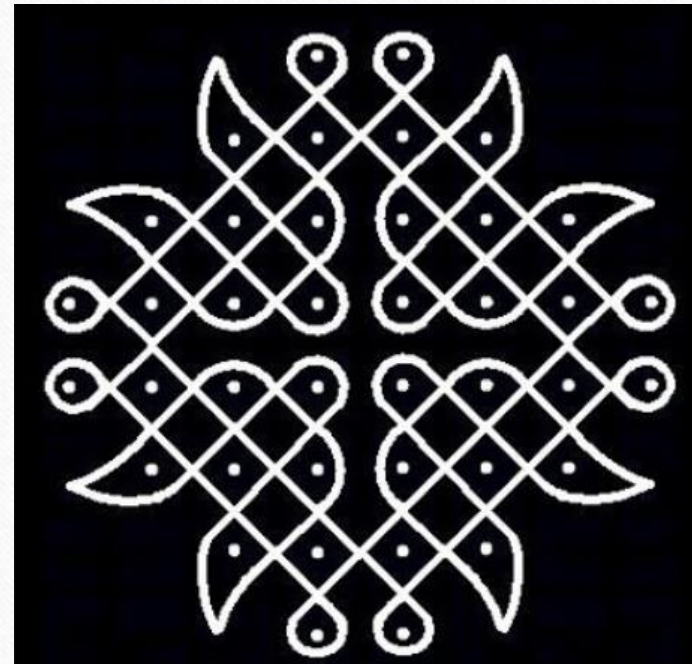
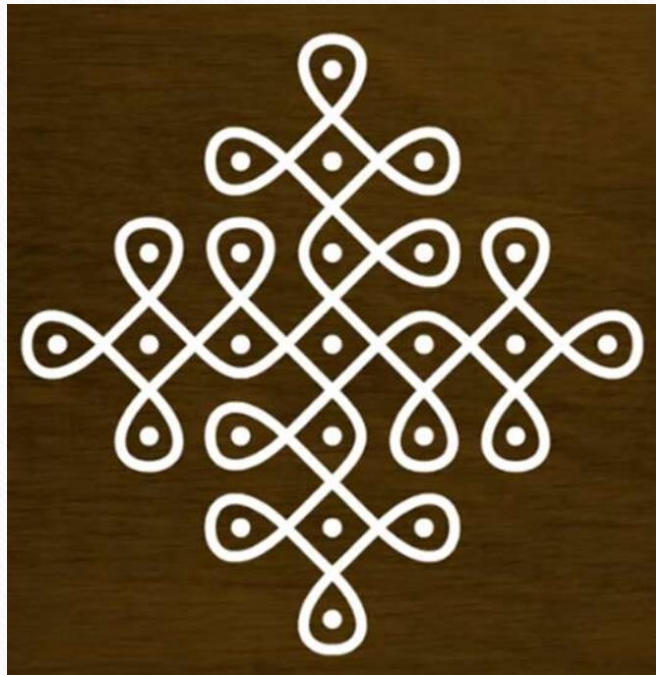
Back



Front

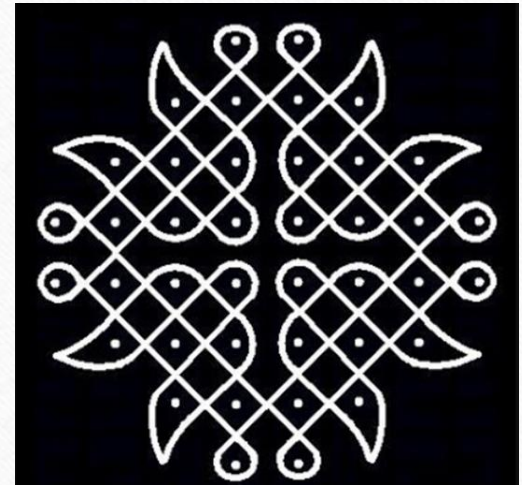
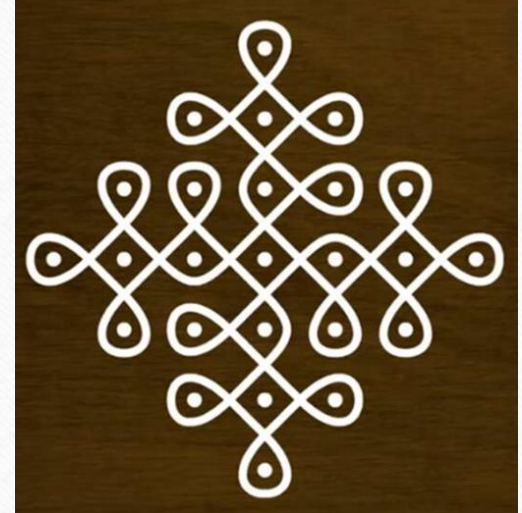
Dots and Patterns

Do you know with the help of dots
We can create so many beautiful patterns and
designs. For example-

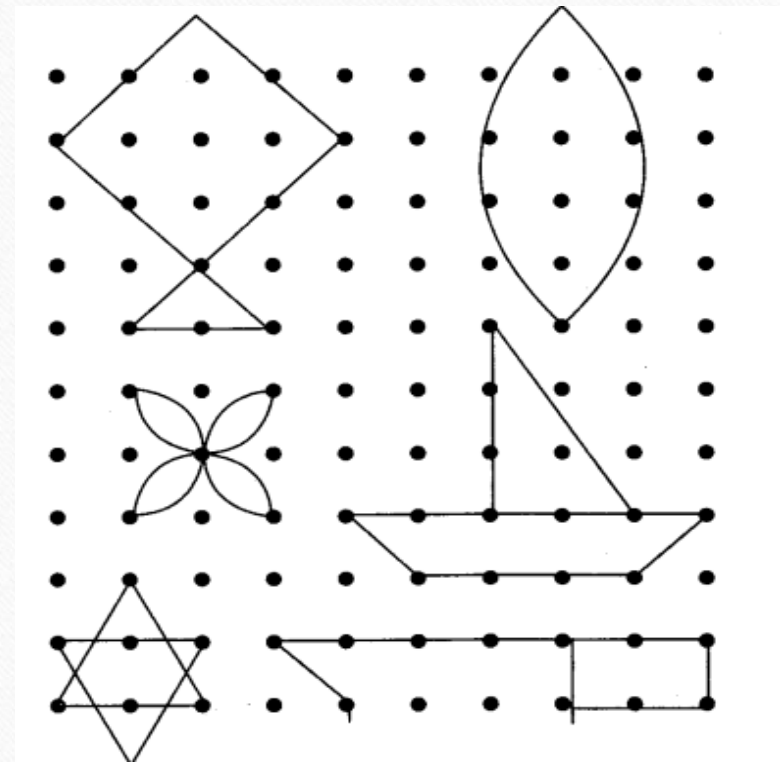
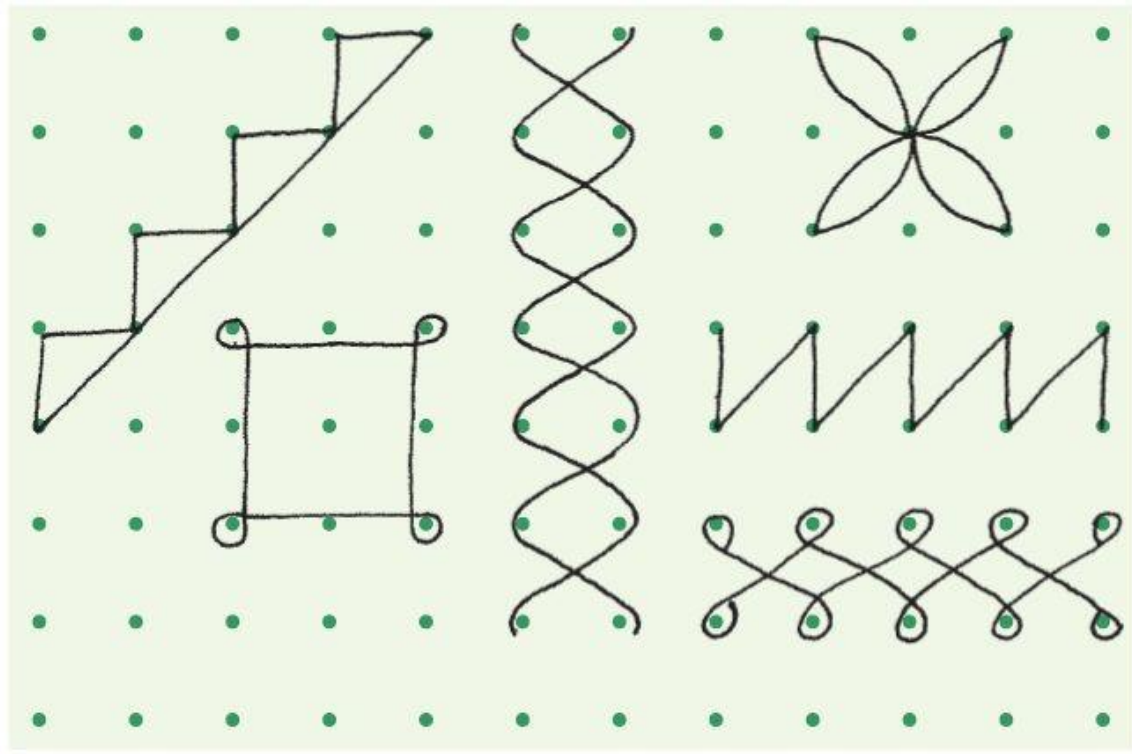


You must have seen these designs in Rangolis or in bedsheets.

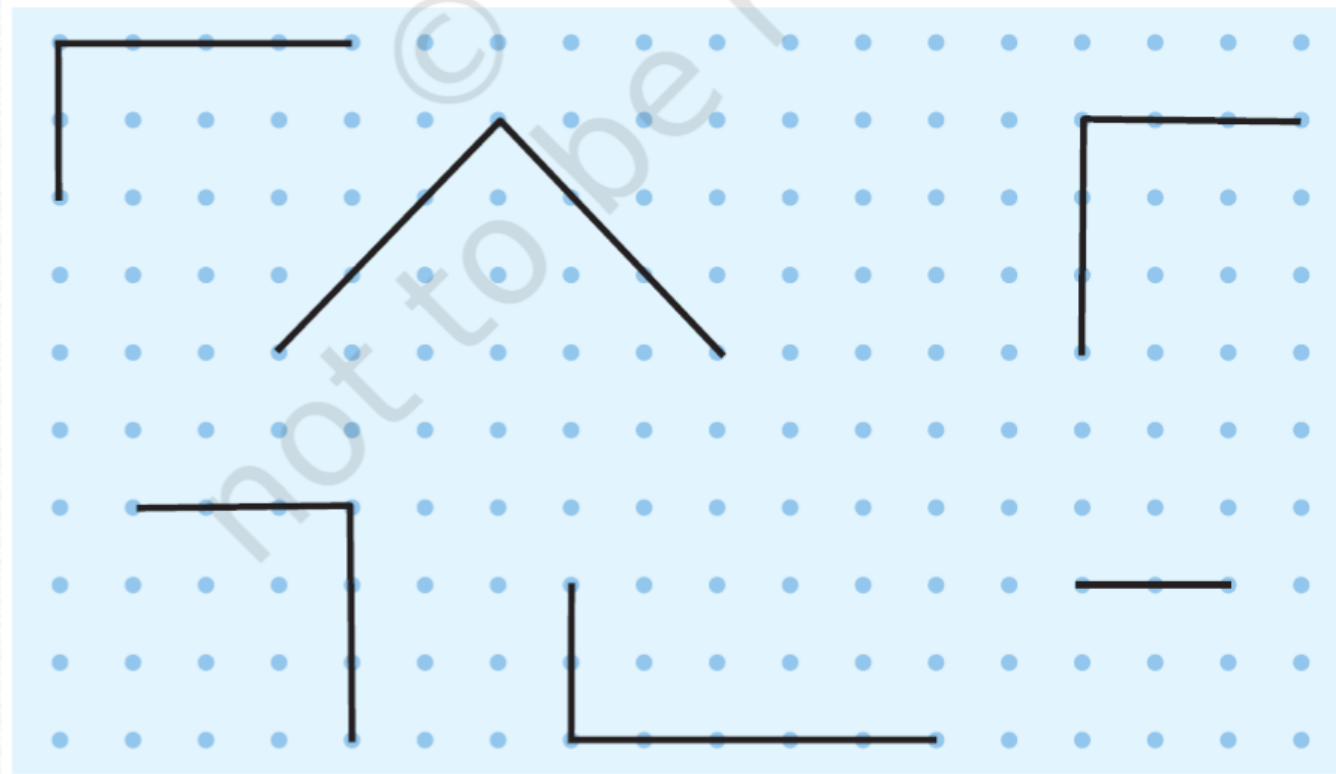
With the help of dots it becomes very easy to draw a design, pattern or a shape.



You can also draw many designs and patterns using evenly spaced dots or a dot-grid.



Try to complete these figures to make squares and rectangles.



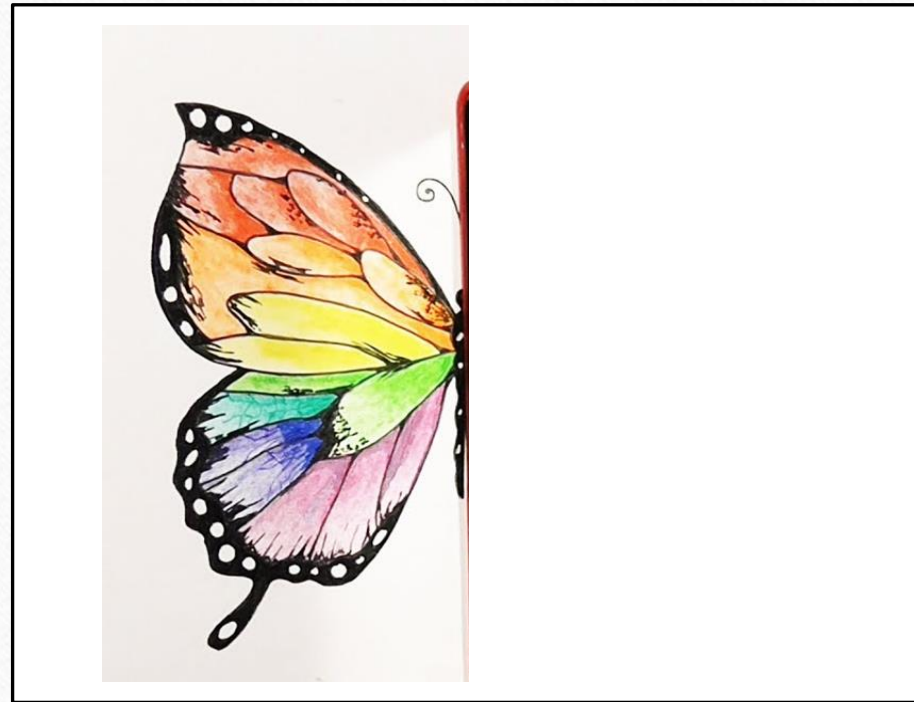
Mirror Halves



When we look inside a mirror we are able to see ourselves inside it, in the exact same way. So whenever we keep something in front of a mirror we are able to see that thing in the exact same way inside it.



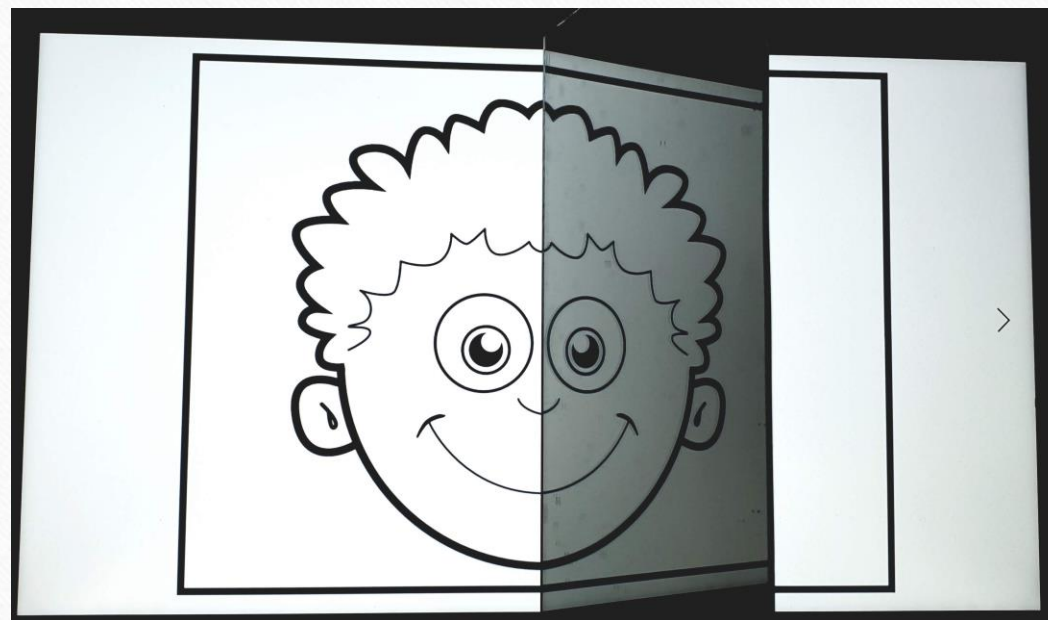
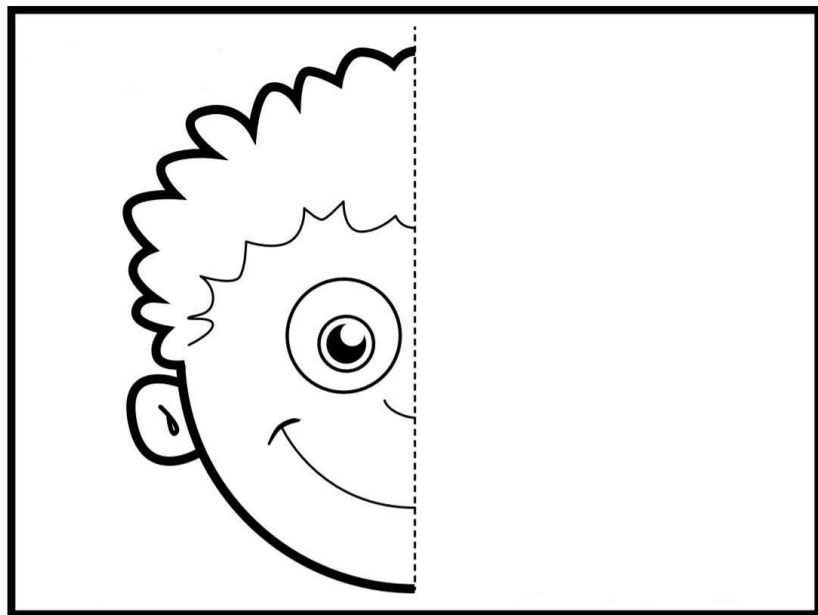
For example, suppose we have a half drawn picture-



With the help of a mirror we can see the other half of the picture or the complete picture just like this-

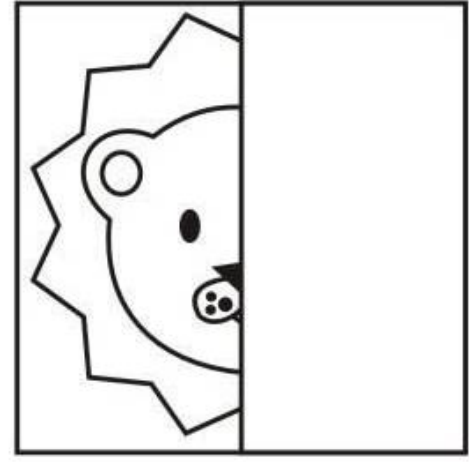
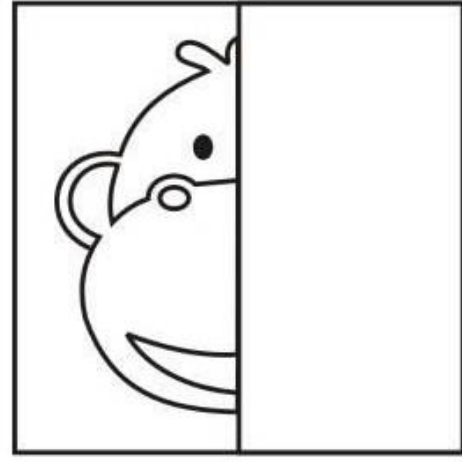
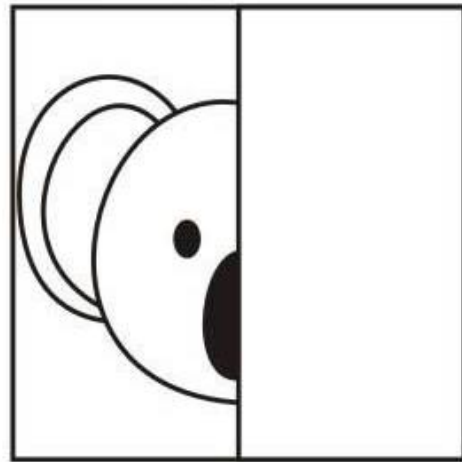
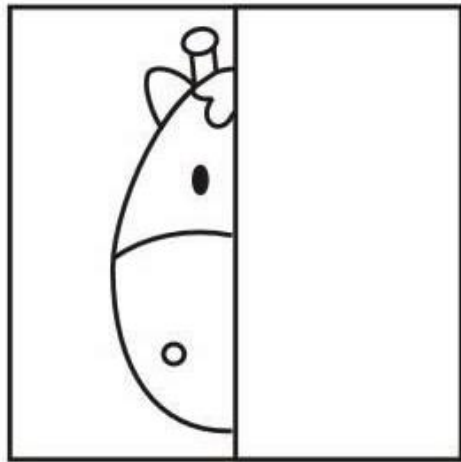


There are many other examples:



So the pictures or objects which have same or identical other half are called mirror halves of each other.

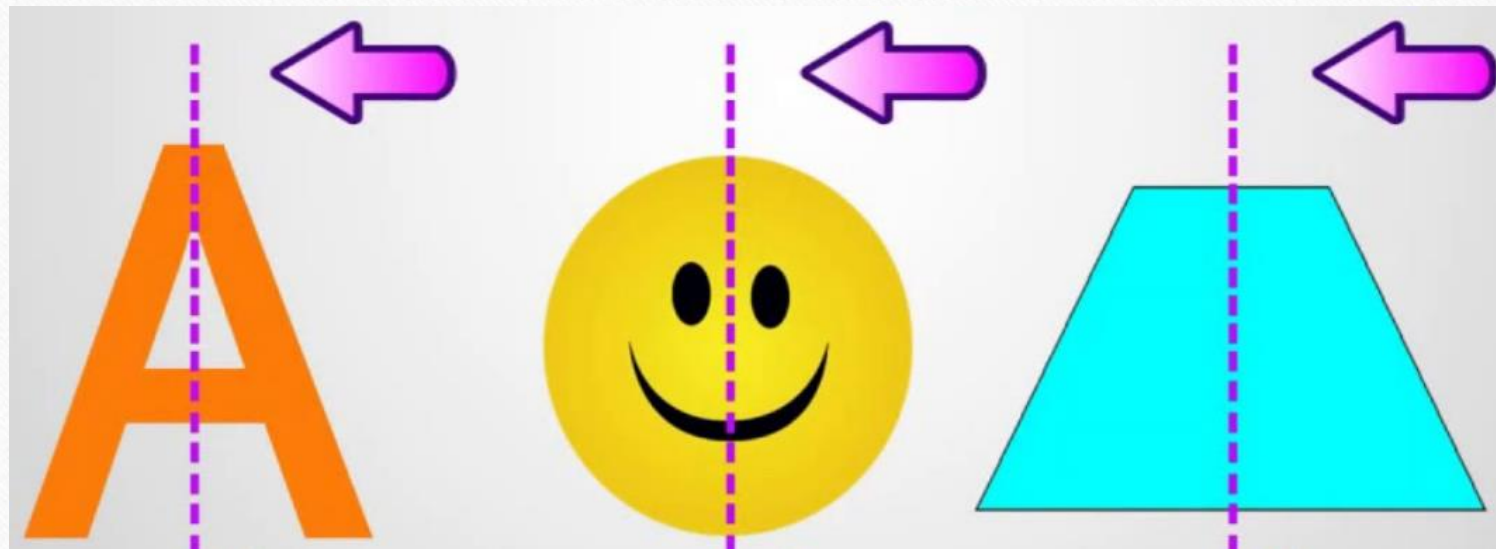
You can try this with following pictures-



Symmetrical and asymmetrical figures

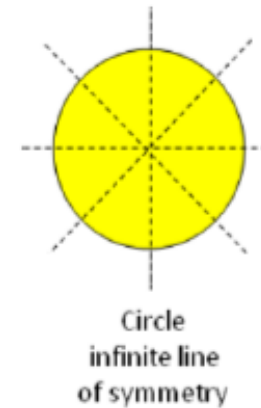
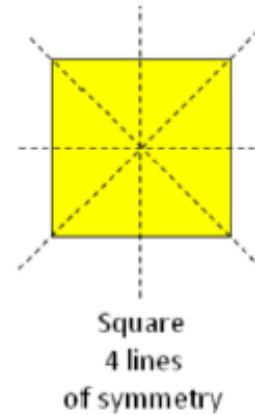
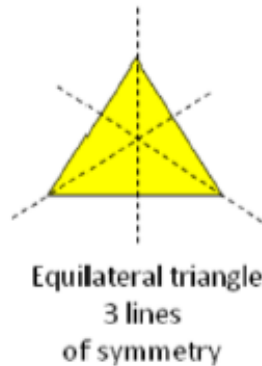
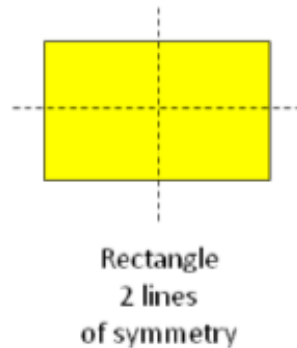
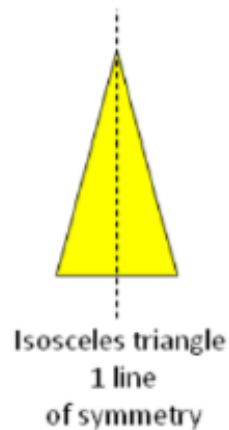
Symmetrical figures

Something is symmetrical when it is the same on both sides. A shape has symmetry if a central dividing line (a mirror line) can be drawn on it, to show that both sides of the shape are exactly the same.

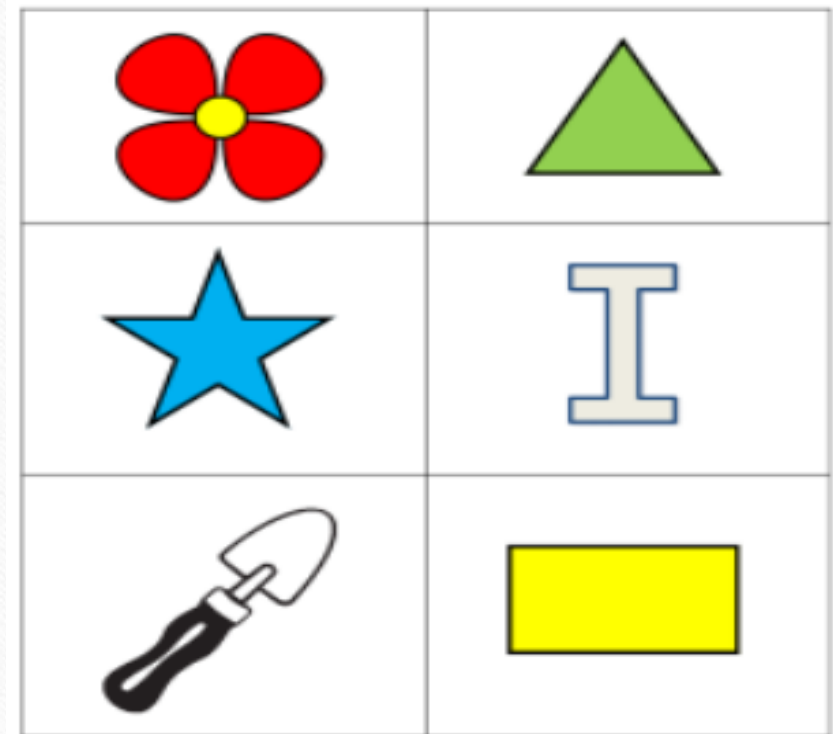
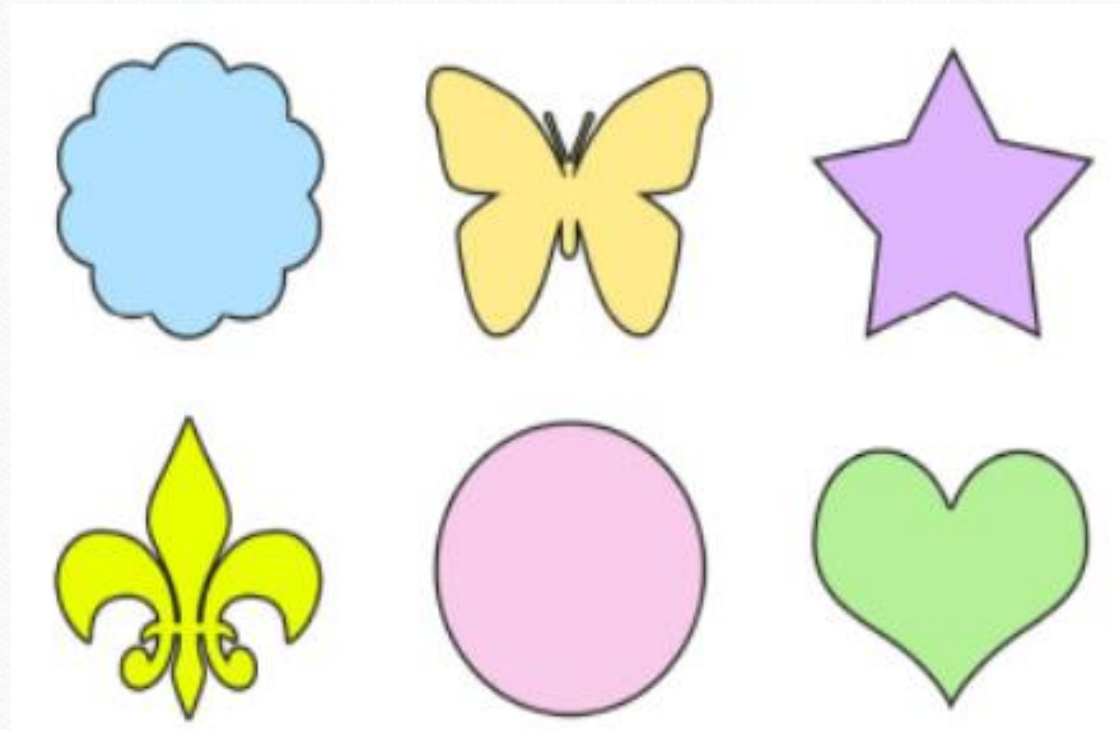


Line of symmetry

A figure can have different types of symmetry. A figure is said to have line symmetry if it can be divided into two equal and same parts along a line. The line that divides it into two equal halves is called as 'line of symmetry'.

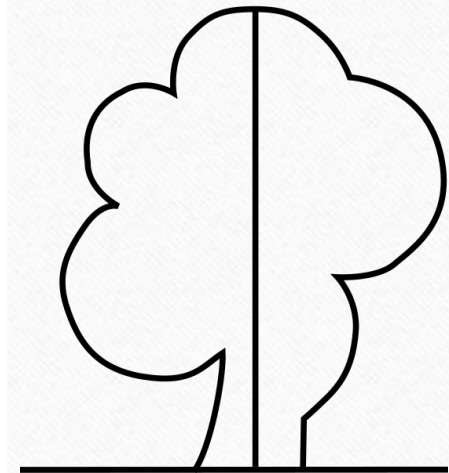


Can you draw line of symmetry in following figures?



Asymmetrical figures

Some figures are not symmetrical, means they are not same on both sides. When we draw a central line in such figures they do not divide in same or equal parts, such figures are called asymmetrical figures.



Symmetry around us..

Symmetry has many applications in our day to day life,

- In fact, everything beautiful around us is symmetrical.
- Rangolis, that we love so much are symmetrical.
- Many beautiful buildings are made on symmetry itself.
- The patterns in our bedsheets, doors, windows, curtains are made of symmetry.
- Many clothes like sarees, sweaters have symmetrical patterns drawn on them.

