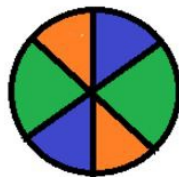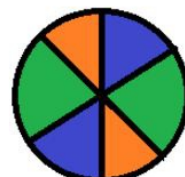## Congruence Ex 16.1 Q1

Answer :

Congruent objects or figures are exact copies of each other or we can say mirror images of each other. The relation of two objects being congruent is called congruence.

Consider Ball A and Ball B. These two balls are congruent.

Ball A   **Ball B**

Now consider the two stars below. Star A and Star B are exactly the same in size, colour and shape. These are congruent stars.
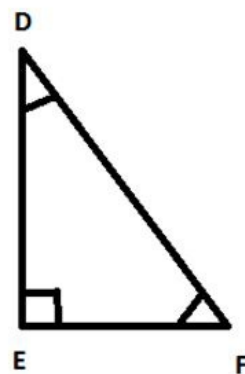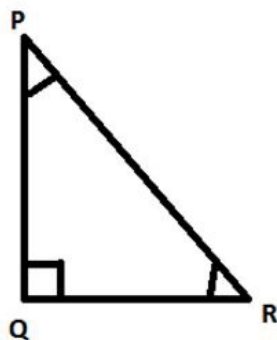

STAR A   **STAR B**

Let us look at the triangles below, Here we have triangle PQR and triangle DEF.
These two triangles have corresponding angles equal and corresponding sides equal. Thus these triangles are congruent to each other.

Congruence Ex 16.1 Q2

Answer :

1) They have the same length, since they can superpose on each other.

2) Their measures are the same. On superposition, we can see that the angles are equal.

3) Their sides are equal. All the sides of a square are equal and if two squares have equal sides, then all their sides are of the same length. Also angles of a square are 90^0 which is also the same for both the squares.

4) Their lengths are equal and their breadths are also equal. The opposite sides of a rectangle are equal. So if two rectangles have lengths of the same size and breadths of the same size, then they are congruent to each other.

5) Their radii are of the same length. Then the circles will have the same diameter and thus will be congruent to each other.

********** END *********