

Explain and Write down the similarities between circle and sphere.

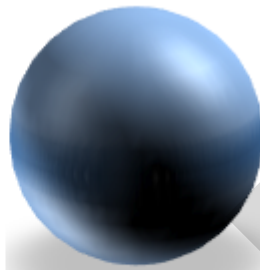
## Similarities between Circle and Sphere

Both circles and spheres have a perfect symmetry around their centers. All the points lying at a distance  $r$  from the center of the sphere or a circle form a sphere. The longest distance inside a sphere is double this distance  $r$  and is called the diameter of the sphere.

To a mathematician, both the circle and a sphere are one and the same thing as a collection of the points that are equidistant from the center of the circle or the sphere. In a plane, a round object is a circle but the same becomes a sphere in space.



**Circle**



**Sphere**

Circle

A circle is the set of all points in a plane that are equidistant from a given point. It is the center of the circle. It is a familiar shape and it has a host of geometric properties that can be proved using the traditional Euclidean format.