

REFRACTION OF LIGHT AT CURVED SURFACES

1. Choose the correct answer. []
 - a. The shape of the object appears to be inverted when seen through an empty cylindrical shaped glass beaker
 - b. The shape of the object appears to be inverted when seen through a cylindrical shaped glass beaker filled with water.A) a is true B) b is true C) Both a and b are true D) Both a and b are false.
2.  Identify the shape of this object when seen through an empty cylindrical glass beaker. []
 - A) 
 - B) 
 - C) 
 - D) 
3.  Imagine the shape of this object when seen through cylindrical glass beaker filled with water. []
 - A) 
 - B) 
 - C) 
 - D) 
- 4 A ray will bend _____ the normal if it travels from a rarer medium to a denser medium. []
 - A) above
 - B) below
 - C) towards
 - D) away from
- 5 A ray will bend _____ the normal if it travels from a denser medium to a rarer medium. []
 - A) above
 - B) below
 - C) towards
 - D) away from
6. A ray travelling parallel to the principal axis strikes a convex surface and passes from a rarer medium to denser medium the refracted ray reaches a particular point _____ the principal axis. []
 - A) below
 - B) on
 - C) towards
 - D) away from
7. A ray travelling parallel to the principal axis strikes a convex surface and passes from a denser medium to rarer medium. The refracted ray moves _____ the principal axis. When you extend the refracted ray backwards, it intersects the principal axis at some point.
 - A) above
 - B) below
 - C) towards
 - D) away from
8. A ray travelling parallel to the principal axis strikes a concave surface and passes from a denser medium to rarer medium. The refracted ray reaches a particular point _____ the principal axis. []
 - A) on
 - B) below
 - C) towards
 - D) away from
9. A ray travelling parallel to the principal axis strikes a concave surface and passes from a rarer medium to denser medium. The refracted ray moves _____ the principal axis. When you extend the refracted ray backwards, it intersects the principal axis at some point.
 - A) above
 - B) below
 - C) towards
 - D) away from
10. A light ray parallel to the principal axis, when incident on a transparent curved surface, undergoes refraction and the point where the refracted light ray intersects the principal axis is called []
 - A) Pole
 - B) Centre of curvature
 - C) Focus
 - D) Midpoint between pole and centre of curvature
11. Identify the false statement, for an incident light ray parallel to the principal axis.
 - i) Travels from rarer medium to denser medium through a concave surface, after refraction bends towards principal axis and intersects the principal axis.
 - ii) Travels from denser medium to rarer medium through a convex surface, after refraction bends away from principal axis and when produced backward intersects the principal axis at a point. []
 - A) (i) is false
 - B) (ii) is true
 - C) (i) is true
 - D) Both A, B are true.
12. The centre of the curved surface is called..... []
 - A) Centre of curvature
 - B) Pole
 - C) Focus
 - D) Midpoint of radius of curvature
13. All distances are measured from the _____. []
 - A) Pole
 - B) Centre of curvature
 - C) Focus
 - D) Object
14. Distances measured along the direction of the incident light ray are taken as _____. []
 - A) positive
 - B) negative
 - C) A and B
 - D) NONE OF THESE
15. Distances measured opposite to the direction of the incident light ray are taken as _____. []
 - A) positive
 - B) negative
 - C) both
 - D) NONE OF THESE
16. The heights measured vertically above from the points on the axis are taken as _____. []
 - A) positive
 - B) negative
 - C) both
 - D) NONE OF THESE
17. The heights measured vertically down from the points on the axis are taken as negative. []
 - A) positive
 - B) negative
 - C) both
 - D) NONE OF THESE