

Science — Light: Reflection and Refraction

Class X · CBSE Board · Chapter 10 · Practice Worksheet

Student Name: _____

Part A — Fill in the Blanks

1. The angle of incidence is always equal to the angle of _____.
2. The focal length of a concave mirror is _____ (positive / negative).
3. When light travels from denser to rarer medium, it bends _____ the normal.
4. The SI unit of refractive index is _____.
5. A virtual image _____ (can / cannot) be obtained on a screen.

Part B — Short Answer (2 Marks Each)

6. State two differences between a real image and a virtual image.

7. A ray of light travelling in air enters water ($n = 1.33$) at an angle of incidence of 45° . Calculate the angle of refraction.

8. Draw a diagram showing the image formation by a concave mirror when the object is placed between F and C.

9. Why does a swimming pool appear shallower than its actual depth?

Part C — Application Question (3 Marks)

10. An object is placed 15 cm in front of a convex mirror of focal length 10 cm. Find the position, nature, and size of the image. Draw a ray diagram to support your answer.