



Class 10 Science | Light - Reflection And Refraction

MCQ WORKSHEET • 15 questions • Choose one correct option • Suggested time: 25 minutes

1. A concave mirror forms an image of the same size when the object is at:

- A. Pole
- B. Centre of curvature
- C. Principal focus
- D. Infinity

2. A convex mirror always forms an image of a real object that is:

- A. Real and same size
- B. Virtual, erect and diminished
- C. Virtual and inverted
- D. Real, inverted and enlarged

3. A concave mirror gives a virtual enlarged image when the object lies:

- A. At centre of curvature
- B. Beyond centre of curvature
- C. Between pole and focus
- D. At infinity

4. A spherical mirror has radius of curvature 40 cm. Focal-length magnitude is:

- A. 40 cm
- B. 80 cm
- C. 20 cm
- D. 10 cm

5. For a concave mirror, $u = -30$ cm and $f = -15$ cm. Image distance v is:

- A. -30 cm
- B. -10 cm
- C. +10 cm
- D. +30 cm

6. A ray enters glass obliquely from air. It generally bends:

- A. Back along its path always
- B. Away from the normal
- C. Toward the normal
- D. Through 90° always

7. Refractive index of glass is 1.5. Speed of light in glass is ($c = 3 \times 10^8$ m/s):

- A. 4.5×10^8 m/s
- B. 1.5×10^8 m/s
- C. 3×10^8 m/s
- D. 2×10^8 m/s

8. A ray through the optical centre of a thin lens emerges approximately:

- A. Through the first focus always
- B. Undeviated
- C. Reflected backward
- D. Parallel to the axis always

9. A convex lens forms a real image of equal size when the object is at:

- A. $2F_1$
- B. F_1
- C. Optical centre
- D. Between F_1 and optical centre

10. A concave lens forms for a real object an image that is:

- A. Real and same size
- B. Real and enlarged
- C. Virtual and diminished
- D. Virtual and always enlarged

11. For a convex lens, $u = -30$ cm and $f = +20$ cm. Image distance is:

- A. -12 cm
- B. -60 cm
- C. +12 cm
- D. +60 cm

12. A lens has focal length +0.50 m. Power is:

- A. -2 D
- B. +2 D
- C. +50 D
- D. +0.5 D

13. A lens of power -4 D has focal length:

- A. +25 cm
- B. -40 cm
- C. -4 cm
- D. -25 cm

14. If a real image is twice the object height and inverted, magnification is:

- A. +2
- B. -1/2
- C. -2
- D. +1/2

15. An object at infinity is focused by a convex lens at its:

- A. Principal focus on the other side
- B. Twice focal length
- C. Optical centre
- D. First focus on object side

ANSWER KEY — check after completing all 15 questions

1.B 2.B 3.C 4.C 5.A 6.C 7.D 8.B 9.A 10.C 11.D 12.B 13.D 14.C 15.A

Original exam-style practice • Reference notes: www.physics.guru/cbse-practice-papers/ • Not an official paper