

Basic Optics Concepts

Optics · Answer Key · 8 Questions

1. Which branch of physics primarily studies the behavior and properties of light?

- A) Thermodynamics
- B) Mechanics
- C) Optics**
- D) Electromagnetism

2. In which medium does light travel fastest?

- A) Water
- B) Glass
- C) Vacuum**
- D) Air

3. What phenomenon occurs when light waves bounce off a surface, such as a mirror?

- A) Refraction
- B) Diffraction
- C) Reflection**
- D) Absorption

4. What is the bending of light as it passes from one transparent medium to another called?

- A) Reflection
- B) Refraction**
- C) Dispersion
- D) Absorption

5. Which type of lens causes parallel light rays to converge to a single focal point?

- A) Concave lens
- B) Cylindrical lens
- C) Diverging lens
- D) Convex lens**

6. Which of the following colors has the longest wavelength in the visible light spectrum?

- A) Blue
- B) Green
- C) Red**
- D) Violet

7. What optical device can separate white light into its constituent colors, like a rainbow?

- A) Mirror
- B) Lens
- C) Prism**
- D) Filter

8. What part of the human eye acts like a convex lens to focus light onto the retina?

- A) Iris
- B) Pupil
- C) Cornea
- D) Crystalline Lens**