

Lenses Quiz Answer Key PDF

Lenses Quiz Answer Key PDF

Disclaimer: The lenses quiz answer key pdf was generated with the help of StudyBlaze AI. Please be aware that AI can make mistakes. Please consult your teacher if you're unsure about your solution or think there might have been a mistake. Or reach out directly to the StudyBlaze team at max@studyblaze.io.

What type of lens is thicker in the middle than at the edges?

- A. Concave lens
- B. Convex lens ✓**
- C. Cylindrical lens
- D. Planar lens

Which optical instrument uses lenses to magnify distant objects?

- A. Microscope
- B. Telescopes ✓**
- C. Camera
- D. Binoculars

Which equation represents the lens formula?

- A. $1/f = 1/v + 1/u$ ✓**
- B. $f = v + u$
- C. $1/f = 1/u - 1/v$
- D. $f = u - v$

What is the primary use of concave lenses in vision correction?

- A. Correcting farsightedness
- B. Correcting nearsightedness ✓**
- C. Correcting astigmatism
- D. Correcting color blindness

Which type of image is formed by a concave lens?

- A. Real and inverted
- B. Virtual and upright ✓**
- C. Real and upright
- D. Virtual and inverted

Which type of aberration is caused by different wavelengths of light focusing at different points?

- A. Spherical aberration
- B. Chromatic aberration ✓**
- C. Comma
- D. Astigmatism

What are common uses of concave lenses?

- A. Eyeglasses for nearsightedness ✓**
- B. Magnifying glasses
- C. Peepholes ✓**
- D. Projectors

Which of the following statements about real images are true?

- A. They can be projected onto a screen ✓**
- B. They are always upright
- C. They are formed by converging light rays ✓**
- D. They are always virtual

Which optical devices use lenses to focus light?

- A. Cameras ✓**
- B. Telescopes ✓**
- C. Mirrors
- D. Microscopes ✓**

Which factors affect the focal length of a lens?

- A. Refractive index ✓**
- B. Lens thickness ✓**

C. Radii of curvature ✓

D. Lens material

Which of the following are characteristics of a convex lens?

A. Thicker in the middle ✓

B. Diverges light rays

C. Converges light rays ✓

D. Forms real images ✓

What is the focal point of a lens?

A. The point where light rays diverge

B. The point where light rays converge ✓

C. The center of the lens

D. The edge of the lens

Which type of lens is used in magnifying glasses?

A. Concave lens

B. Convex lens ✓

C. Cylindrical lens

D. Planar lens

What are the effects of spherical aberration in lenses?

A. Blurred images ✓

B. Color fringes

C. Distorted images ✓

D. Uneven focus ✓