

## Lenses Quiz PDF

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

- Concave lens
- Convex lens
- Cylindrical lens
- Planar lens

**Which optical instrument uses lenses to magnify distant objects?**

- Microscope
- Telescopes
- Camera
- Binoculars

**Which equation represents the lens formula?**

- $1/f = 1/v + 1/u$
- $f = v + u$
- $1/f = 1/u - 1/v$
- $f = u - v$

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

- Correcting farsightedness
- Correcting nearsightedness
- Correcting astigmatism
- Correcting color blindness

**Which type of image is formed by a concave lens?**

- Real and inverted
- Virtual and upright

- Real and upright
- Virtual and inverted

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

- Spherical aberration
- Chromatic aberration
- Comma
- Astigmatism

**What are common uses of concave lenses?**

- Eyeglasses for nearsightedness
- Magnifying glasses
- Peepholes
- Projectors

**Which of the following statements about real images are true?**

- They can be projected onto a screen
- They are always upright
- They are formed by converging light rays
- They are always virtual

**Which optical devices use lenses to focus light?**

- Cameras
- Telescopes
- Mirrors
- Microscopes

**Which factors affect the focal length of a lens?**

- Refractive index
- Lens thickness
- Radii of curvature
- Lens material

**Which of the following are characteristics of a convex lens?**

- Thicker in the middle
- Diverges light rays
- Converges light rays
- Forms real images

**What is the focal point of a lens?**

- The point where light rays diverge
- The point where light rays converge
- The center of the lens
- The edge of the lens

**Which type of lens is used in magnifying glasses?**

- Concave lens
- Convex lens
- Cylindrical lens
- Planar lens

**What are the effects of spherical aberration in lenses?**

- Blurred images
- Color fringes
- Distorted images
- Uneven focus