

Mirrors Quiz Answer Key PDF

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Which of the following is a characteristic of a real image?

- A. It is upright.
- C. It appears behind the mirror.
- D. It is always smaller than the object.
- C. It can be projected onto a screen. ✓**

In which type of mirror is the image always smaller than the object?

- A. Plane Mirror
- C. Convex Mirror ✓**
- D. Cylindrical Mirror
- C. Concave Mirror

What is the primary law governing the behavior of light when it reflects off a mirror?

- A. Law of Refraction
- C. Law of Reflection ✓**
- D. Law of Diffraction
- C. Law of Dispersion

Which material is most commonly used for the reflective coating on modern mirrors?

- A. Silver
- C. Aluminum ✓**
- D. Copper
- C. Gold

What is the focal point of a concave mirror?

A. The point where parallel light rays converge. ✓

C. The center of the mirror.

D. The edge of the mirror.

C. The point where light rays diverge.

Why are convex mirrors preferred for use in security and surveillance applications?

Convex mirrors are preferred for use in security and surveillance applications because they offer a wider field of view and help reduce blind spots.

What are the differences in image formation between concave and convex mirrors?

Concave mirrors can form both real and virtual images, while convex mirrors only form virtual images.

Discuss the cultural significance of mirrors in one specific culture or mythology.

In Japanese mythology, mirrors hold significant cultural importance as they are seen as symbols of truth and self-awareness. The sacred mirror, one of the three Imperial Regalia of Japan, is associated with the sun goddess Amaterasu, representing enlightenment and the divine connection between the physical and spiritual realms.

In which applications are concave mirrors commonly used? (Select all that apply)

A. Makeup mirrors ✓

C. Rearview mirrors

D. Satellite dishes ✓

C. Flashlights ✓

What are some historical materials used for making mirrors? (Select all that apply)

A. Polished stones ✓

C. Aluminum

D. Copper ✓

C. Silver ✓

Which of the following are true about plane mirrors? (Select all that apply)

- A. They reverse images left to right. ✓**
- C. They form virtual images. ✓**
- D. They have a focal point.
- C. They can magnify images.

What are some common uses of mirrors in everyday life? (Select all that apply)

- A. Personal grooming ✓**
- C. Sound amplification
- D. Architectural decoration ✓**
- C. Solar energy concentration ✓**

How has the technology of mirror-making evolved from ancient times to the present day?

Mirror-making technology has progressed from ancient polished metals and stones to modern glass mirrors coated with silver or aluminum, enhancing their quality and production efficiency.

Describe the process by which a concave mirror can form both real and virtual images.

A concave mirror forms a real image when the object is located outside the focal point, resulting in an inverted and reduced image. Conversely, it forms a virtual image when the object is placed between the focal point and the mirror, producing an upright and magnified image.

Which mirror type is commonly used in rearview mirrors of vehicles?

- A. Plane Mirror
- C. Convex Mirror ✓**
- D. Cylindrical Mirror
- C. Concave Mirror

What is the main characteristic of a virtual image formed by a mirror?

- A. It is inverted.
- C. It appears behind the mirror. ✓**
- D. It is always larger than the object.

C. It can be projected on a screen.

Which of the following are characteristics of a concave mirror? (Select all that apply)

A. Can form real images ✓

C. Can magnify objects ✓

D. Always forms virtual images

C. Diverges light rays

Which of the following statements about convex mirrors are correct? (Select all that apply)

A. They converge light rays.

C. They form images that are always upright. ✓

D. They can form real images.

C. They are used in security mirrors. ✓

Explain how the law of reflection applies to both plane and curved mirrors.

In both plane and curved mirrors, the law of reflection states that the angle of incidence (the angle between the incoming ray and the normal) is equal to the angle of reflection (the angle between the reflected ray and the normal). In plane mirrors, this results in a clear, reversed image, while in curved mirrors, the varying angles of incidence lead to different reflection patterns, creating magnified or diminished images.

What type of mirror is flat and reflects images in their normal proportions?

A. Concave Mirror

C. Plane Mirror ✓

D. Parabolic Mirror

C. Convex Mirror