Geometric Optics: Reflection and Mirrors

This is a preview of the draft version of the quiz

Started: Nov 4 at 10:09am

Quiz Instructions

Question 1 — 1 pts

The image will appear larger than the object if _____.

- the magnification is greater than 1
- the magnification is equal to 1
- none of the above
- the magnification is less than 1

Question 2 — 1 pts

A convex mirror is known as a _____ because it causes the light rays to _____.

- converging mirror; spread apart

- diverging mirror; spread apart
- diverging mirror; come together
- converging mirror; come together

Question 3

1 pts

Light rays that strike a concave mirror parallel to the principle axis will _____.

- follow the law of reflection like a plane mirror
- reflect through the focal point
- will converge
- all the above

Question 4

1 pts

An object is placed in front of a concave mirror. If the image is inverted, enlarged and real, which of the following is true?

- The object is located on the focal point.
- The object is located past the focal point but closer than 2f from the mirror.

- The object has a height that is greater than the focal length of the mirror
- The object has a height that is less than half of the focal length.

Question 5 — 1 pts

What is the magnification factor of the reflection of a candle 1.5 m away from a plane mirror?

- .11
- .67
- 1
- 2.25

Question 6 — 1 pts

The focal point of a concave spherical mirror is between a stone and the mirror.

The resultant stone's image _____ flipped and will be located _____ the mirror.

- Not enough information
- will be | behind
- will not be | in front of

- Will be | in front of

Question 7

1 pts

A candle is in front of a convex spherical mirror.

The resultant candle's image _____ flipped and will be located _____ the mirror.

- will be | in front of
- will not be | behind
- Not enough information
- will be | behind

Question 8

1 pts

A 1.8 m tall woman is standing 5.0 m in front of a convex mirror with a focal length of 3.0 m.

What is the magnification factor for her image in the mirror?

- .38
- .5

- .25
- .63

Question 9

1 pts

A 10.0 cm tall marker is placed 40 cm in front of a concave mirror with a focal distance of 20 cm.

How tall in cm will the marker's image be?

- 20
- -20
- -10
- 10

Question 10

1 pts

The focal distance of a concave mirror is 10 cm. An object's image is located 15 cm in front the mirror at a height of -2.0 cm.

How tall in cm is the object?

- 5

- 2
- 0
- 4

Question 11

1 pts

An object is located at the focal point of a concave mirror.

The resultant image _____.

- is inverted, smaller, and real
- does not exist
- is upright, enlarged, and virtual
- is inverted, larger, and real

Question 12

1 pts

A box of chocolates sits 5.0 m away from a mirror. The image of the box of chocolates is virtual, upright, and 2.5 m away from the mirror.

What is the magnification of the box of chocolates and what type of mirror is this?

- M = 1.0 | Plane
- M = 0.5 | Convex
- M = 0.5 | Concave
- M = - 0.5 | Concave

Question 13

1 pts

A pile of rocks sits 5.0 m away from a mirror. The image of the pile of rocks is real, inverted, and 2.5 m away from the mirror.

What is the magnification of the pile of rocks and what type of mirror is this?

- M = -0.5 | Convex
- M = - 0.5 | Concave
- M = 0.5 | Concave
- M = 0.5 | Convex

Question 14

1 pts

A glass sits 5.0 m away from a large mirror. The image of the glass is virtual, upright, and 5.0 m behind the large mirror.

What is the magnification of the glass and what type of mirror is the large mirror?

- M = -0.5 | Convex
- M = 0.5 | Convex
- M = 0.5 | Concave
- M = 1.0 | Plane

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