

PHYSICS (GRADE-7)
LIGHT
Lesson 28: Plane mirrors



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1. Define:

Image:

After reflection or refraction, when light rays from an object meet at a point or seem like coming away from a point, the point is the image of the object.

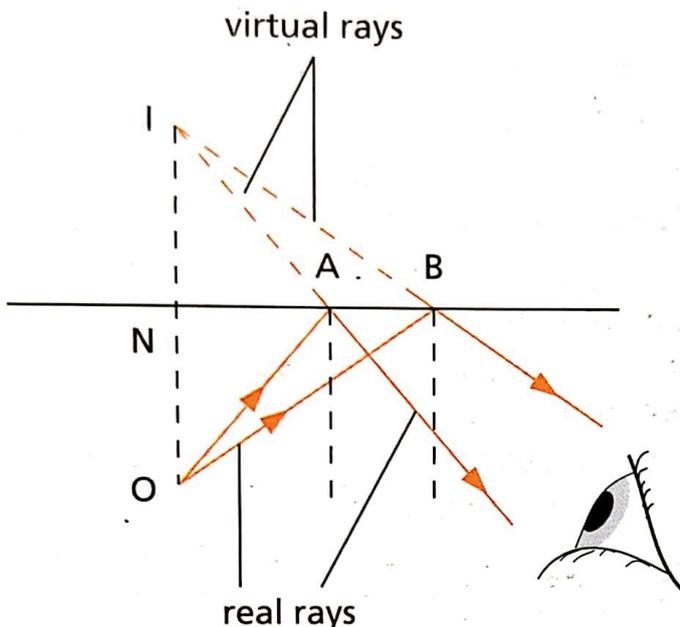
2. Differentiate between real and virtual image.

Ans.

Real image: This is one, through which the light rays actually pass and which can be formed on a screen. Examples of real images are image formed on the film in a camera and on the retina of eye.

Virtual image: This is one, through which the rays do not pass and only appear to come from it. Examples of virtual images are the image formed by a magnifying glass when used to look at a small object and that in a plane mirror.

3. How does a plane mirror form an image?



A plane mirror forms a virtual image.

Suppose that rays from point *O* fall on a plane mirror, and are reflected as shown in the above figure. If we extend the reflected rays backwards, they intersect at point *I*. It appears to our eyes that the reflected rays are coming from *I*. This is the virtual image of *O*.

4. Write the properties of an image in a plane mirror.

Ans.

The image in a plane mirror is:

- i) As far behind the mirror as the object is in front, and the light joining the image and the object is perpendicular to the mirror.
- ii) The same size as the object.
- iii) Virtual.
- iv) Laterally inverted

5. What is lateral inversion?

Ans.

In a mirror image, left and right are interchanged and the image appears to be laterally inverted. The effects occur whenever an image is formed by one reflection and is very evident if print is viewed in a mirror.