SUBJECT:- PHYSICS   CLASS:- XTH   DATE:03/08/XXI

SUBJECT TEACHER:- MR. NEEL NIRANJAN

CHAPTER 2. (LIGHT- REFLECTION) (BASED ON NCERT PATTERN)

(REVISION)

Multiple reflection -

For both regular and diffused reflection of light, a single mirror is used while when we take two mirrors, a single source of light can be reflected multiple times. This type of reflection is only possible when the intensity of the light becomes so low that we cannot see it. Infinite images will be formed in multiple reflections, as each image is the result of another image.

The number of images varies as per the angle between two mirrors. If we decrease the angle, the number of images get increased. The number of images becomes infinite when the angle between the two mirrors is zero i.e, they are parallel. Here is a formula to calculate the number of images for diffused reflection of light:

$$Number\ of\ Images = \frac{360°}{angle\ between\ mirrors} - 1$$

Concave Mirror:- A mirror, whose reflecting surface is curved inwards, that is, faces towards the centre of the sphere, is called a concave mirror. A concave mirror can be compared to the inside of the spoon. Concave mirrors are the reflecting objects that are used in reflecting telescope.

Convex Mirror :- A spherical mirror whose reflecting surface is curved outwards, is called a convex mirror. A convex mirror can be compared to the outside of a balloon. A convex mirror is used as a rear view mirror and for security purposes. A number of parallel rays hit a convex mirror, they reflect outwards and travel directly away from an imaginary focal point (F).

Reflection of light is the phenomenon of bouncing back of light in the same medium on striking the surface of any object.