## Chapter -Light

1.Boojho while waving his hand very fast in front of his eyes, observes that his fingers appear blurred. What could be the reason for it?
2.The angle between incident ray and reflected ray is $60^{\circ}$. What is the value of angle of incidence?
3.The distance between the object and its image formed by a plane mirror appears to be 24 cm . What is the distance between the mirror and the object?
4.Look at Fig.16.7. Can the image of the child in it be obtained on a screen?

5.What kind of lens is there in our eyes? Where does it form the image of an object?
6.Boojho planned an activity to observe an object $A$ through pipes as shown in Fig. 16.8, so that he could see objects which he could not directly see.


Fig. 16.8
(a) How many mirrors should he use to see the objects?
(b) Indicate the positions of the mirrors in the figure.
(c) What must be the angle with respect to the incident light at which he should place the mirrors?
(d) Indicate the direction of rays in the figure.
(e) If any of the mirrors is removed, will he be able to see the objects?
7.There is a mistake in each of the following ray diagrams given as Fig. 16.9 a, b, and c. Make the necessary correction (s).

8.Fig. 16.10 shows the word REST written in two ways in front of a mirror. Show how the word would appear in the mirror.
9. How many times is a ray of light reflected by two plane mirrors placed parallel and facing each other?
10.How is diffused reflection useful for us?
11.Two friends are standing in front of a plane mirror at a distances of 8 m and 15 m from it. What is the distance between their images?
12. Complete the following ray diagram.


