Light numerical reflection test

1. Draw the ray diagram of a concave mirror which is used by doctor's head mirror

2. Draw the ray diagram when an object is kept at 2F in front of a concave mirror.

3. An object 4 cm in size is placed at a distance pf 25 cm from a concave mirror of focal length 15 cm. find the position, nature and height of the image.

4. An erect image of 3 times the size of the object is obtained with a concave mirror of radius of curvature of 36cm. what is the position of the object? Draw the ray diagram?

5. The image formed by a convex mirror of focal length 30 cm is a quarter of the object. what is the distance of the object from the mirror?

6. An object is placed 18 cm in front of a spherical mirror. The image is formed at 4 cm to the height of the mirror. Calculate the focal length. The mirror is concave or convex?

7. An object is placed at a large distance in front of a convex mirror of radius of curvature 40 cm. how far is the image behind the mirror?

8. An object is placed in front of a concave mirror of focal length 20 cm, the image formed is three times the size of the object. Calculate two possible distances of the object from the mirror.

9. Focal length of converging mirror is 50cm. what is R?

10. What is the focal length of a plane mirror?