

PHYSICS - X-PART-6 CLASS 44

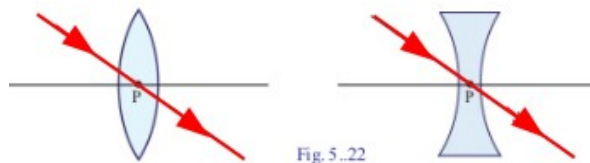


5 REFRACTION OF LIGHT

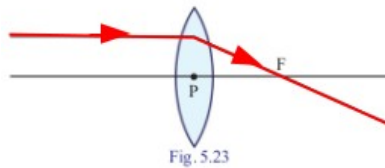
Ray diagram of formation of images by lenses

The points to be taken care of while drawing ray diagrams

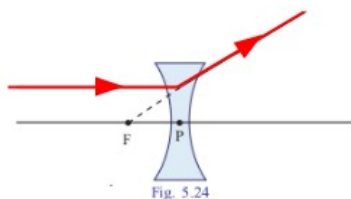
1. When a ray of light passes through the optic centre of a thin lens, it does not undergo deviation.



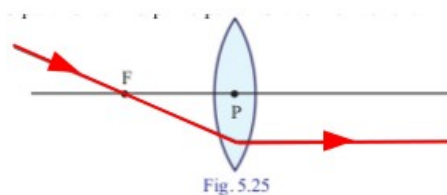
2. A ray of light falling parallel to the principal axis of a convex lens passes through the principal focus after refraction.



3. A ray incident parallel to the principal axis of a concave lens appears to diverge from the focus on the same side of the lens.

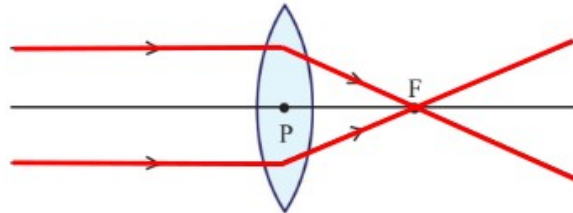


4. A ray of light passing through the principal focus of a convex lens passes parallel to the principal axis after refraction.



## Ray diagram of formation of images by convex lenses

### 1. Object at infinity



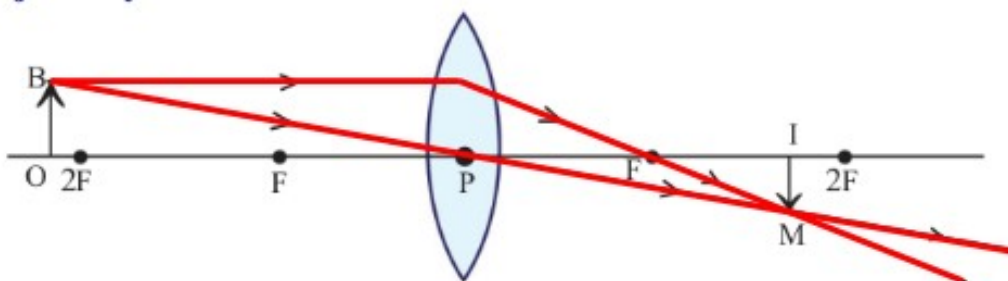
#### The characteristics of the image

**Position of the image : At F**

**Nature of the image : Real, Inverted**

**Size of the image : Diminished**

### 2. Object beyond 2F



#### The characteristics of the image

**Position of the image : Between F and 2F**

**Nature of the image : Real, Inverted**

**Size of the image : Diminished**