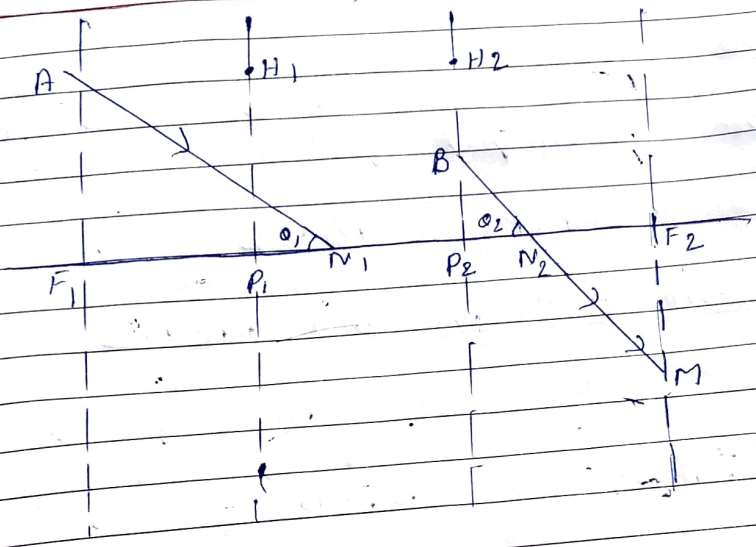
Nodal points and Nodal planes



Nodal points are conjugate points on the principle axis of any optical system for which Angular magnification is unity (+1)

When a light ray is passing through a Nodal point then after refraction from the lens system this light ray emergent from the second Nodal point which is parallel to incident ray. In a thin lens - light passing through the centre of a thin lens does not deviate

Since AN_1 and BM are parallel

$$\tan\theta_1 = \tan\theta_2$$

$$\alpha = \frac{\tan\theta_2}{\tan\theta_1}$$

$$\boxed{\alpha = +1}$$