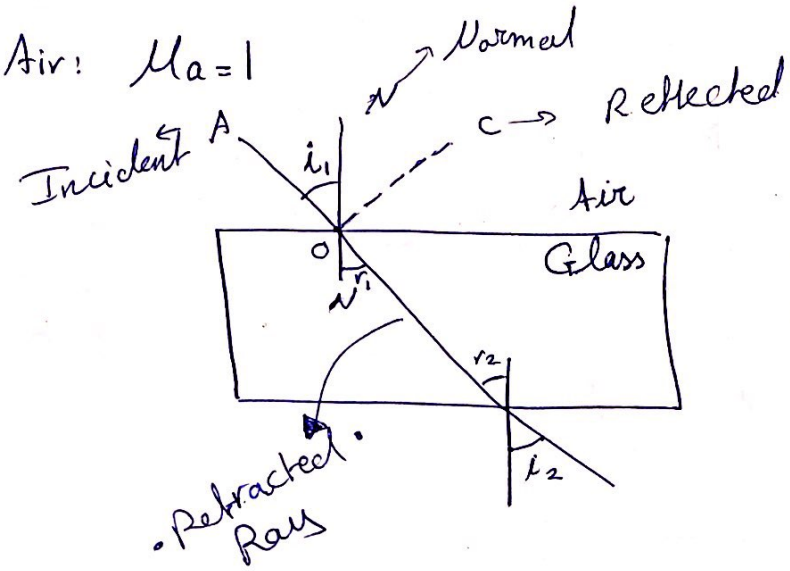
Exp 6 :- Index of Refraction

$n = \frac{c}{v}$ → speed of light in vacuum
→ speed of light in medium

- The light bends when moving from a medium to another

for Air: $\mu_a = 1$



i : angle of incidence
r : angle of Refraction

Snell's law :- $\mu_a \sin(i) = \mu_g \sin(r)$

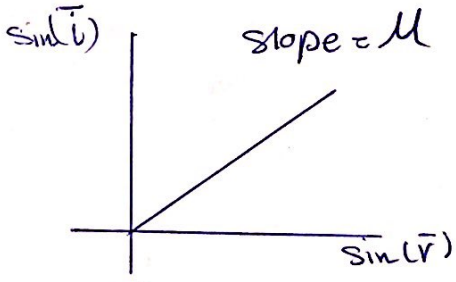
↳ Angle of incidence
↳ angle of Refraction

$\mu_a = 1$

$$\sin(i) = \mu_g \sin(r)$$

- μ_g is the slope

$$\mu_g = \frac{\sin(i)}{\sin(r)}$$



$$\frac{\Delta \mu_g}{\mu_g} = \frac{\Delta \sin(i)}{\sin i} + \Delta \frac{\sin(r)}{\sin r}$$

$$\frac{\Delta \mu_g}{\mu_g} = \frac{\cos i}{\sin i}(\Delta i) + \frac{\cos r}{\sin r} \Delta r$$

Δi and Δr in radians

By estimation

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