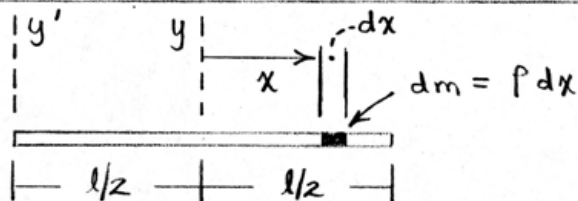


B/3



$$dI_{yy} = dm x^2 = (\rho dx) x^2 = \rho x^2 dx$$

$$I_{yy} = \int dI_{yy} = \int_{-l/2}^{l/2} \rho x^2 dx = \frac{1}{12} \rho l^3$$

But the total mass $m = \rho l$

$$\text{So } I_{yy} = \frac{1}{12} \rho l^3 \left(\frac{m}{\rho l} \right) = \underline{\underline{\frac{1}{12} m l^2}}$$

$$I_{y'y'} = I_{yy} + m \left(\frac{l}{2} \right)^2 = \underline{\underline{\frac{1}{3} m l^2}}$$