



$$\frac{m}{2} + \frac{m}{2} = m$$

$$\bar{I} = \int_m r^2 \cdot dm$$

$$\bar{I}_{\textcircled{1}} = \frac{1}{3} \cdot \frac{m}{2} \cdot \left(\frac{l}{2}\right)^2 = \frac{1}{6} \cdot m \cdot \frac{l^2}{4}$$

$$\bar{I}_{\textcircled{2}} = \bar{I}_{\textcircled{1}}$$

$$\begin{aligned} \bar{I} &= \bar{I}_{\textcircled{1}} + \bar{I}_{\textcircled{2}} = \frac{1}{6} \cdot m \cdot \frac{l^2}{4} + \frac{1}{6} \cdot m \cdot \frac{l^2}{4} = 2 \cdot \frac{1}{6} \cdot m \cdot \frac{l^2}{4} = \frac{2}{24} \cdot m \cdot l^2 \\ &= \frac{1}{12} \cdot m \cdot l^2 \end{aligned}$$

$$\boxed{\bar{I} = \frac{1}{12} \cdot m \cdot l^2}$$