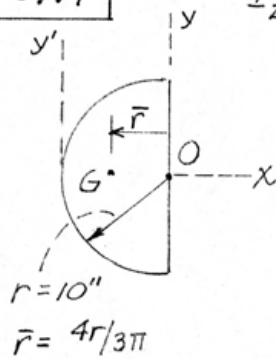


8/17



$$I_{zz} = \bar{I}_O = \frac{1}{2} m r^2 = \frac{1}{2} \frac{5}{32.2} \left(\frac{10}{12} \right)^2 = 0.0539 \text{ lb-ft-sec}^2$$

$$I_{xx} = I_{yy} = \frac{1}{2} I_{zz} = 0.0270 \text{ lb-ft-sec}^2$$

$$I_{yy'} = \bar{I} + m(r - \bar{r})^2$$

$$= I_{yy} - m\bar{r}^2 + m(r - \bar{r})^2$$

$$= I_{yy} + mr(r - 2\bar{r}) = I_{yy} + mr^2 \left(1 - \frac{8}{3\pi} \right)$$

$$= 0.0270 + \frac{5}{32.2} \left(\frac{10}{12} \right)^2 \left(1 - \frac{8}{3\pi} \right)$$

$$= 0.0270 + 0.0163 = 0.0433$$

$$\text{lb-ft-sec}^2$$