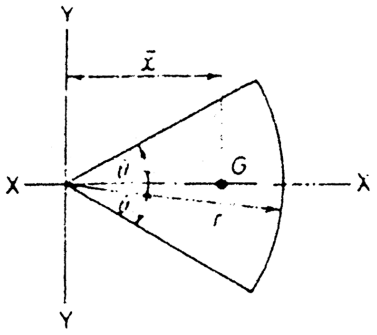
KATI CİSİMLERİN ÖZELLİKLERİ
(G.: Ağırlık merkezi I: Kütle atalet momenti)



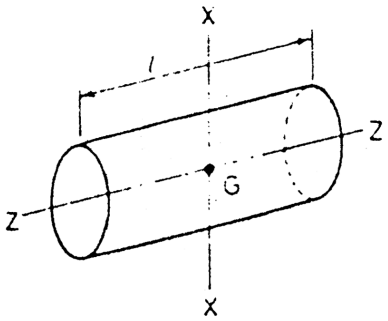
$$\bar{X} = \frac{2r \sin\theta}{3\theta}$$

$$I_{XX} = \frac{r^4}{4}\left(\theta - \frac{\sin 2\theta}{2}\right)$$

$$I_{YY} = \frac{r^4}{4}\left(\theta + \frac{\sin 2\theta}{2}\right)$$

daire parçası

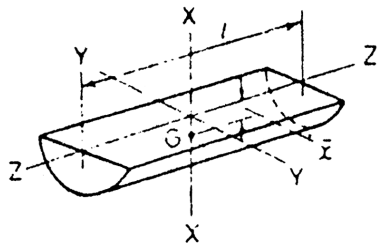
(Second moments of area)



$$I_{XX} = \frac{mr^2}{4} + \frac{ml^2}{12}$$

$$I_{ZZ} = \frac{mr^2}{2}$$

silindir r: yarıçap

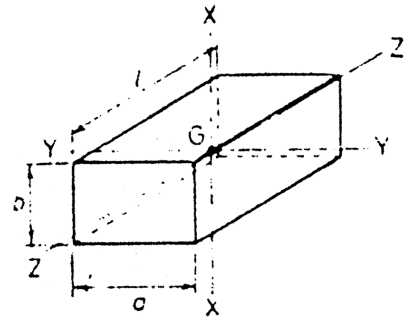


$$\bar{X} = \frac{4r}{3\pi}$$

$$I_{XX} = I_{YY} = \frac{mr^2}{4} + \frac{lm^2}{12}$$

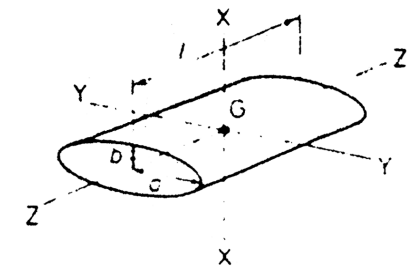
$$I_{ZZ} = \frac{mr^2}{2}$$

yarım silindir r: yarıçap



$$I_{XX} = \frac{m}{12}(a^2 + l^2)$$

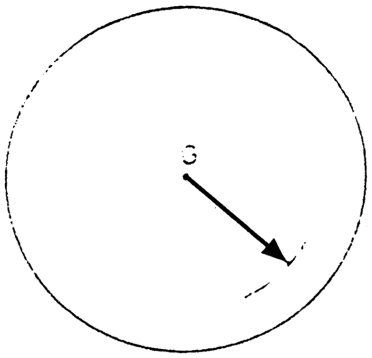
Dikdörtgen Prizma



$$I_{XX} = \frac{ma^2}{4} + \frac{ml^2}{12}$$

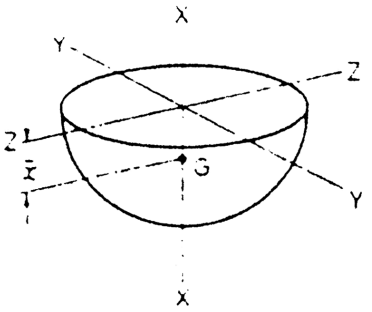
$$I_{ZZ} = \frac{m}{4}(a^2 + l^2)$$

eliptik silindir



$$I = \frac{2mr^2}{5}$$

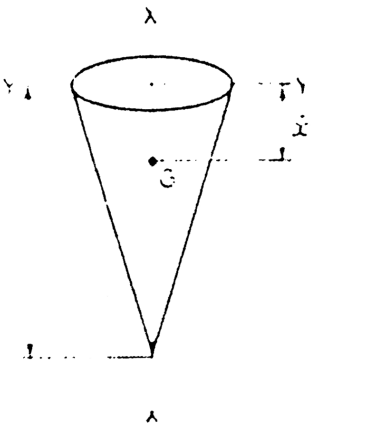
küre



$$\bar{X} = \frac{3r}{8}$$

$$I_{XX} = \frac{2mr^2}{5}$$

Yarım Küre r: Yarıçap

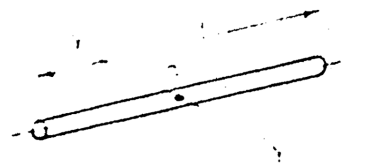


$$\bar{X} = \frac{1}{4}$$

$$I_{XX} = \frac{3mr^2}{10}$$

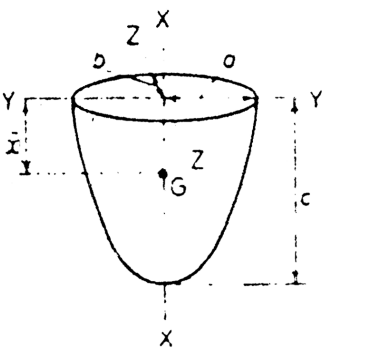
$$I_{YY} = \frac{3mr^2}{20} + \frac{ml^2}{10}$$

Dairesel Koni r: taban yarıçapı



$$I_{YY} = \frac{ml^2}{12}$$

çubuk



$$\bar{X} = \frac{3c}{8}$$

$$I_{XX} = \frac{m}{5}(a^2 + b^2)$$

$$I_{YY} = \frac{m}{5}(b^2 + c^2)$$

yarım elipsoid