

Shape of the body	Axis Of rotation	Expression for Moment of Inertia
One dimensional rod of mass M and length L	1) Center of Rod and \perp to length 2) One end and \perp to length	$\frac{ML^2}{12}$ $\frac{ML^2}{3}$
Sphere of mass M and Radius	1) Any diameter 2) Any tangent plane	$(\frac{2}{5})MR^2$ $(\frac{7}{5})MR^2$
Circular disc of Mass and radius R	1) Through center, \perp to plane of Disk 2) any diameter 3) tangent in the plane of the disc 4) tangent \perp to plane of disk	$(\frac{1}{2})MR^2$ $(\frac{1}{4})MR^2$ $(\frac{5}{4})MR^2$ $(\frac{3}{2})MR^2$
Circular ring of mass M and radius R	1) Through center, \perp to plane of ring 2) any diameter 3) tangent in the plane of the ring 4) tangent \perp to plane of ring	MR^2 $(\frac{1}{2})MR^2$ $(\frac{3}{2})MR^2$ $2MR^2$
Cylinder of mass M ,radius R and length L	1) own axis 2) through center \perp to length	$(\frac{1}{2})MR^2$ $M(\frac{R^2}{4} + \frac{L^2}{12})$
Rectangular lamina of Mass M,length L and breath B	1) Length of lamina and in its plane 2) breath of lamina and in its plane 3) Center of lamina and \perp to its plane	$\frac{MB^2}{3}$ $\frac{ML^2}{3}$ $\frac{M(L^2 + B^2)}{12}$
Rectangular block of Mass M,Length L,Breadth B and Height H	Through center of block and parallel to Length or breadth or height of the block	$\frac{M(H^2 + B^2)}{12}$ $\frac{M(L^2 + H^2)}{12}$ $\frac{M(L^2 + B^2)}{12}$