<table>
<thead>
<tr>
<th>Shape of the body</th>
<th>Axis Of rotation</th>
<th>Expression for Moment of Inertia</th>
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</table>
| 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$^2$  
$M \left( \frac{R^2}{4} + \frac{L^2}{12} \right)$          |
| Rectangular lamina of Mass M, length L and breadth 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 | $\frac{MB^2}{3}$  
$\frac{ML^2}{3}$  
$M \left( L^2 + B^2 \right)$  
$12$  
$M \left( L^2 + B^2 \right)$  
$12$  
$M \left( L^2 + B^2 \right)$  
$12$                                                 |
| 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 | $\frac{M(H^2 + B^2)}{12}$  
$\frac{M(L^2 + H^2)}{12}$  
$\frac{M(L^2 + B^2)}{12}$                                                                 |