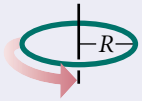
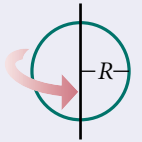
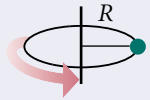
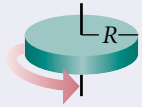
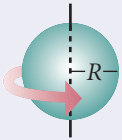
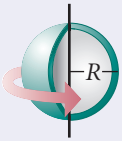
The Moment of Inertia for a Few Shapes

Shape		Moment of inertia
	thin hoop about symmetry axis	MR^2
	thin hoop about diameter	$\frac{1}{2}MR^2$
	point mass about axis	MR^2
	disk or cylinder about symmetry axis	$\frac{1}{2}MR^2$

Shape		Moment of inertia
	thin rod about perpendicular axis through center	$\frac{1}{12}M\ell^2$
	thin rod about perpendicular axis through end	$\frac{1}{3}M\ell^2$
	solid sphere about diameter	$\frac{2}{5}MR^2$
	thin spherical shell about diameter	$\frac{2}{3}MR^2$