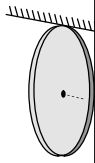
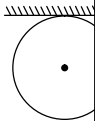
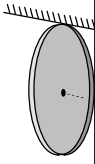
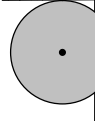
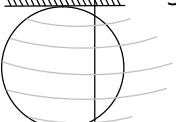
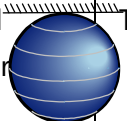


Time Period of Compound Pendulum

Time period of compound pendulum is given by, $T = 2\pi\sqrt{\frac{L}{g}}$ where $L = \frac{l^2 + k^2}{l}$

Here l = distance of center of mass from point of suspension

k = radius of gyration about the parallel axis passing through center of mass.

Body	Axis of rotation	Figure	l	k^2	$L = \frac{l^2 + k^2}{l}$	$T = 2\pi\sqrt{\frac{L}{g}}$
Ring	Tangent passing through the rim and perpendicular to the plane		R	R^2	$2R$	$T = 2\pi\sqrt{\frac{2R}{g}}$
	Tangent parallel to the plane		R	$\frac{R^2}{2}$	$\frac{3}{2}R$	$T = 2\pi\sqrt{\frac{3R}{2g}}$
Disc	Tangent, Perpendicular to plane		R	$\frac{R^2}{2}$	$\frac{3}{2}R$	$T = 2\pi\sqrt{\frac{3R}{2g}}$
	Tangent parallel to the plane		R	$\frac{R^2}{4}$	$\frac{5}{4}R$	$T = 2\pi\sqrt{\frac{5R}{4g}}$
Spherical shell	Tangent		R	$\frac{2}{3}R^2$	$\frac{5}{3}R$	$T = 2\pi\sqrt{\frac{5R}{3g}}$
Solid sphere	Tangent		R	$\frac{2}{5}R^2$	$\frac{7}{5}R$	$T = 2\pi\sqrt{\frac{7R}{5g}}$