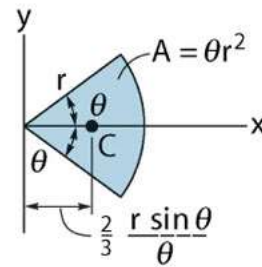


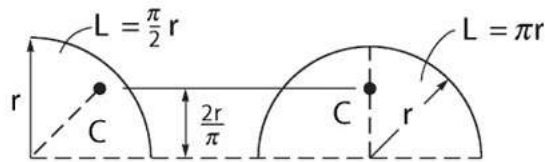
Circular arc segment



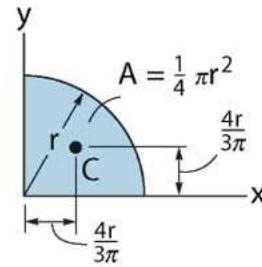
Circular sector area

$$I_x = \frac{1}{4} r^4 (\theta - \frac{1}{2} \sin 2 \theta)$$

$$I_x = \frac{1}{4} r^4 (\theta + \frac{1}{2} \sin 2 \theta)$$



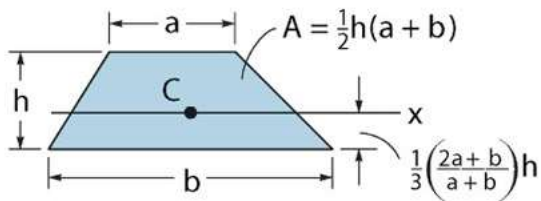
Quarter and semicircle arcs



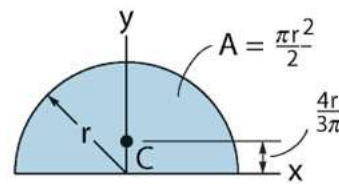
Quarter circle area

$$I_x = \frac{1}{16} \pi r^4$$

$$I_y = \frac{1}{16} \pi r^4$$



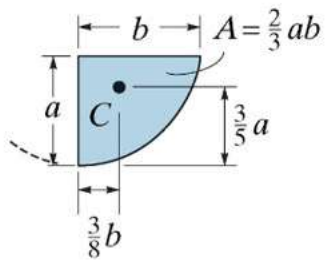
Trapezoidal area



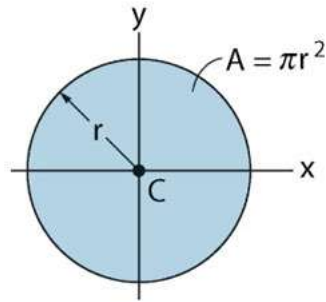
Semicircular area

$$I_x = \frac{1}{8} \pi r^4$$

$$I_y = \frac{1}{8} \pi r^4$$



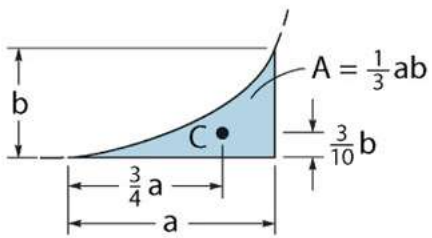
Semiparabolic area



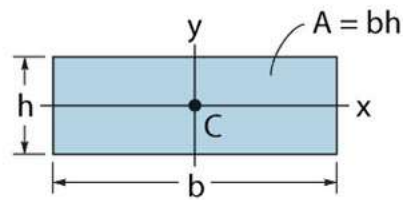
Circular area

$$I_x = \frac{1}{4}\pi r^4$$

$$I_y = \frac{1}{4}\pi r^4$$



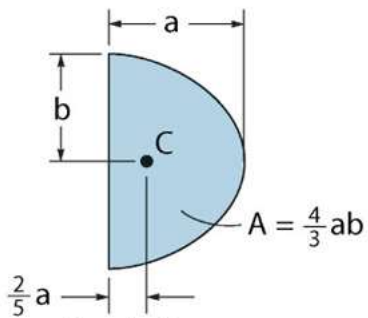
Exparabolic area



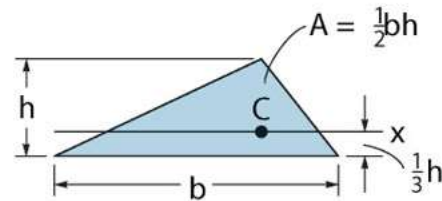
Rectangular area

$$I_x = \frac{1}{12}bh^3$$

$$I_y = \frac{1}{12}hb^3$$

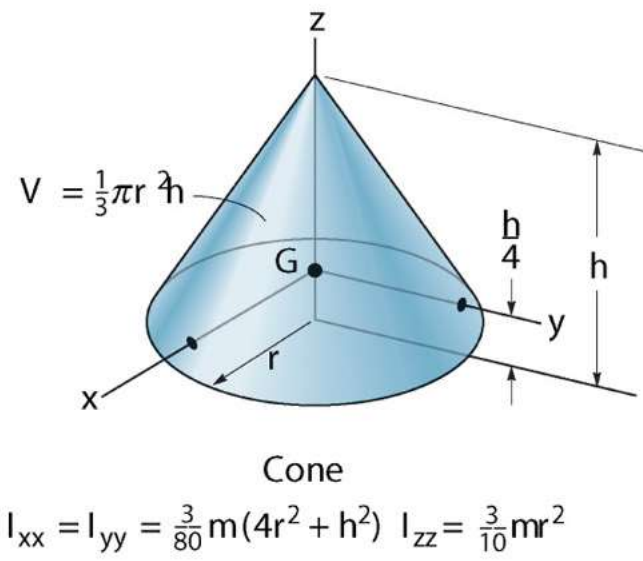
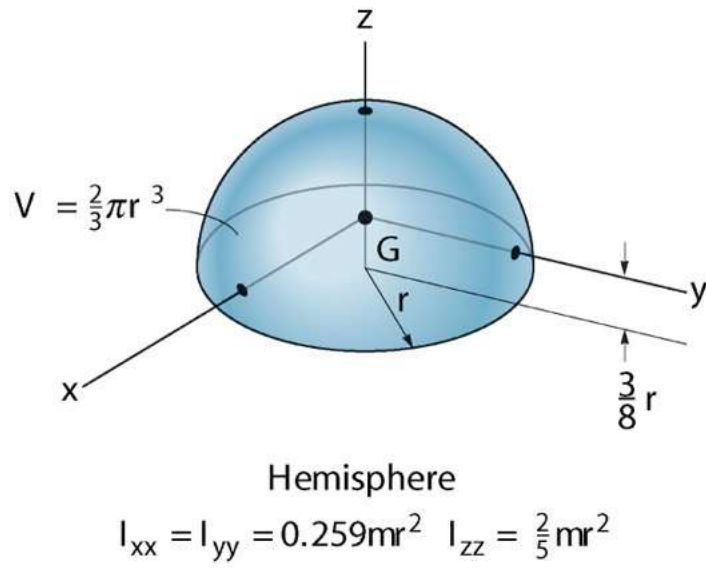
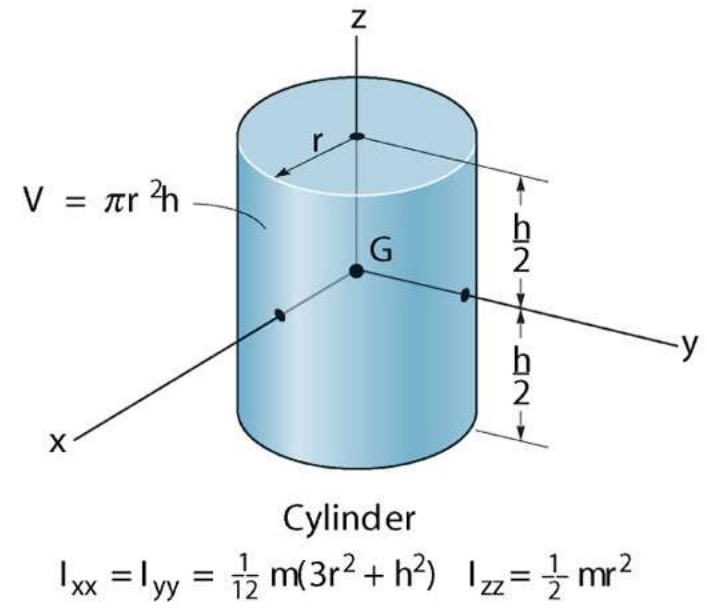
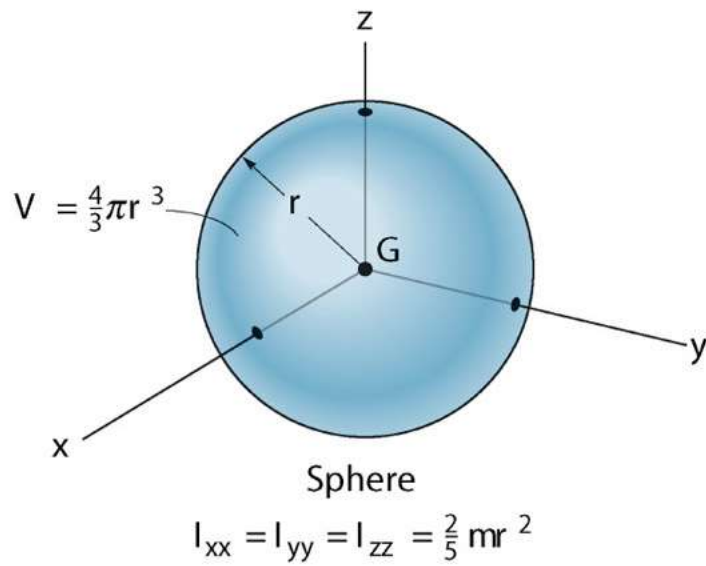


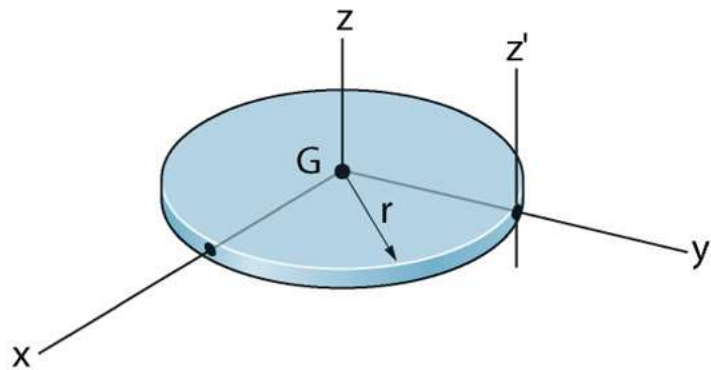
Parabolic area



Triangular area

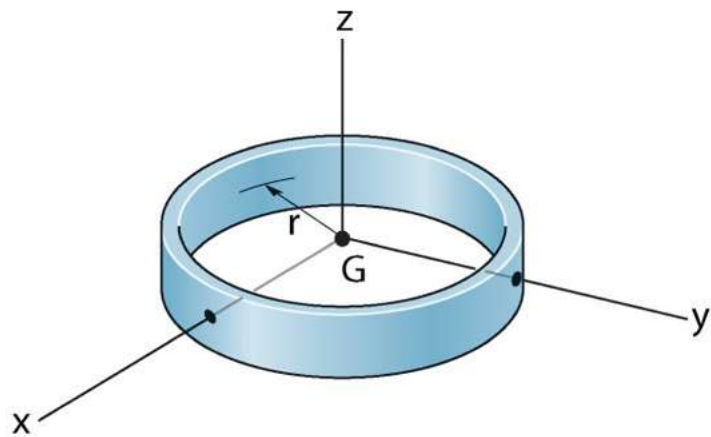
$$I_x = \frac{1}{36}bh^3$$





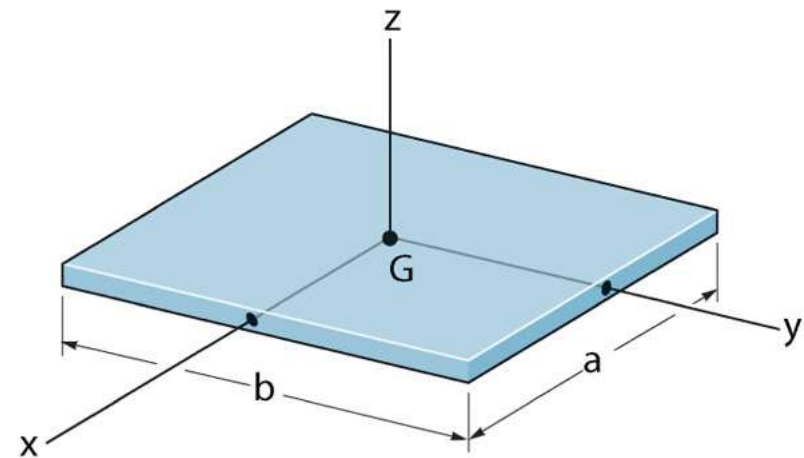
Thin Circular disk

$$I_{xx} = I_{yy} = \frac{1}{4} mr^2 \quad I_{zz} = \frac{1}{2} mr^2 \quad I_{z'z'} = \frac{3}{2} mr^2$$



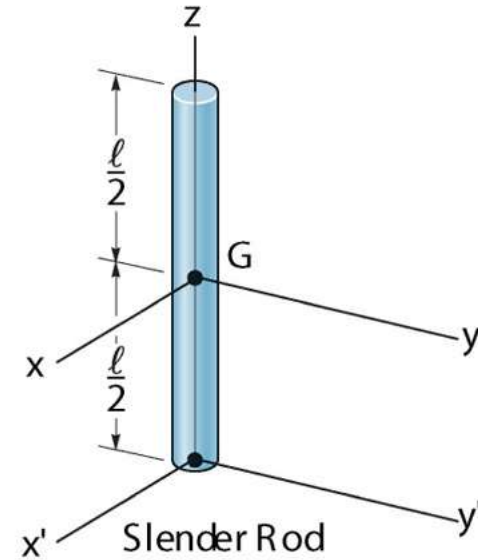
Thin ring

$$I_{xx} = I_{yy} = \frac{1}{2} mr^2 \quad I_{zz} = mr^2$$



Thin plate

$$I_{xx} = \frac{1}{12} mb^2 \quad I_{yy} = \frac{1}{12} ma^2 \quad I_{zz} = \frac{1}{12} m(a^2 + b^2)$$



Slender Rod

$$I_{xx} = I_{yy} = \frac{1}{12} ml^2 \quad I_{x'x'} = I_{y'y'} = \frac{1}{3} ml^2 \quad I_{z'z'} = 0$$