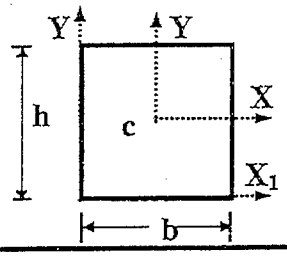
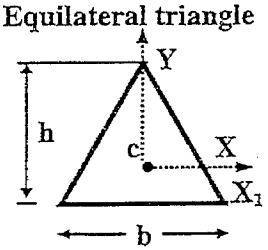
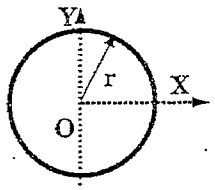
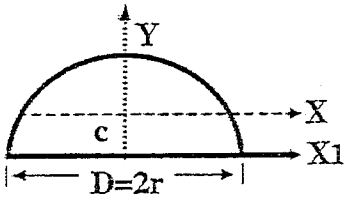
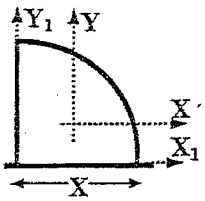
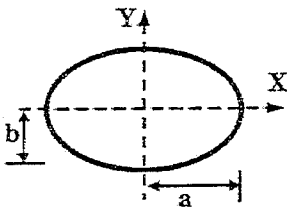
Table (1.2): Moments of inertia of some Geometrical shapes [Ref. 14].

Shape	Moment of inertia	Redius of Gyration
Rectangle 	$I_x = \frac{bh^3}{12}$ $I_{x1} = \frac{bh^3}{3}$	$i_x = \frac{h}{\sqrt{12}}$ $i_{x1} = \frac{h}{\sqrt{3}}$
Equilateral triangle 	$I_x = \frac{bh^3}{36}$ $I_y = \frac{\quad}{48}$ $I_{x1} = \frac{bh^3}{12}$	$i_x = \frac{h}{\sqrt{18}}$ $i_{x1} = \frac{h}{\sqrt{6}}$
Circle 	$I_x = I_y = \frac{\pi r^4}{4}$ $I_p = \frac{\pi r^4}{2}$	$i_x = \frac{r}{2}$ $i_y = \frac{r}{2}$
Semi-circle 	$I_{x1} = I_y = \frac{\pi r^4}{8}$ $I_x = 0.11\, r^4$	$i_{x1} = i_y = \frac{r}{2}$ $i_x = 0.264r$
Quarter-Circle 	$I_{x1} = I_{y1} = \frac{\pi r^4}{16}$ $I_x = I_y = 0.055r^4$	$i_{x1} = i_{y1} = \frac{r}{2}$ $i_x = i_y = 0.264r$
Ellipse 	$I_x = \frac{\pi ab^3}{4}$ $I_y = \frac{\pi ab^3}{4}$	$i_x = \frac{b}{2}$ $i_y = \frac{a}{2}$