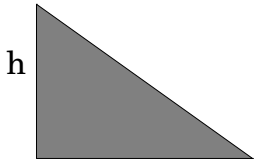
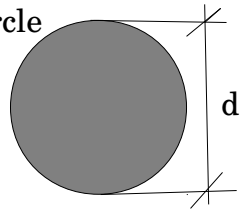
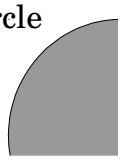
| FIGURE | Area $mm^2$ | X | Y | Ixx $mm^4$ | Iyy $mm^4$ |
|---|---|---|---|---|---|
| Rectangle   | $A = b \times d$ | x=b/2 | y=d/2 | $I_{xx} = \frac{bd^3}{12}$ | $I_{xx} = \frac{db^3}{12}$ |
| Triangle   | $A = \frac{1}{2} b \times h$ | $x_1 = b/3$ From side $x_2 = 2b/3$ From right side | $y_1 = h/3$ From bottom $y_2 = 2h/3$ From Apex | $I_{xx} = \frac{bh^3}{36}$ | |
| Circle   | $A = \frac{\pi}{4} \times d^2$ | $x = d/2$ | $y = d/2$ | $I_{xx} = \frac{\pi}{64} d^4$ | $I_{yy} = \frac{\pi}{64} d^4$ |
| Semicircle  | $A = \frac{\frac{\pi}{4} \times d^2}{2}$ | $x = d/2$ | $y1 = 0.42 \times r$ from base $y2 = 0.58 \times r$ from top | $I_{xx} = 0.11 \times r^4$ | $I_{yy} = \frac{\frac{\pi}{64} d^4}{2}$ |
| Quarter circle  | $A = \frac{\frac{\pi}{4} \times d^2}{4}$ | $x1 = 0.42 \times r$ from base $x2 = 0.58 \times r$ from corner | $y1 = 0.42 \times r$ from base $y2 = 0.58 \times r$ from top | $I_{xx} = \frac{0.11 \times r^4}{2}$ | $I_{xx} = \frac{0.11 \times r^4}{2}$ |

**Parallel axis theorem**

$$I_{PQ} = I_{xx} + A\,y^2$$

**Perpendicular Axis theorem**

**Polar moment of inertia**

$$I_P = I_{xx} + I_{yy}$$