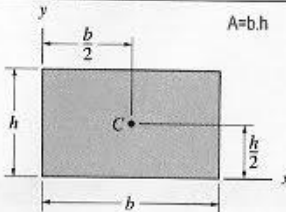
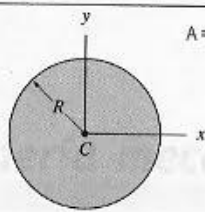
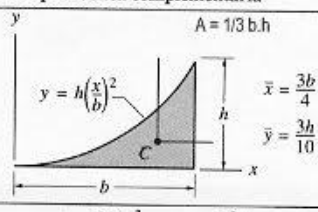
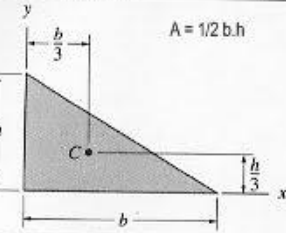
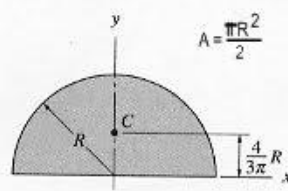
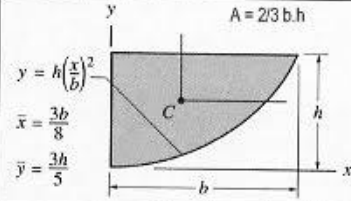
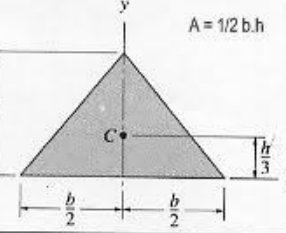
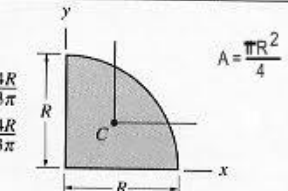
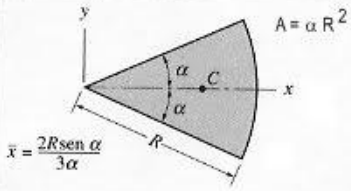
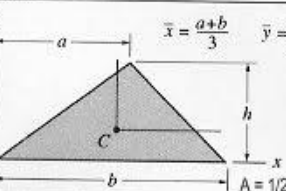
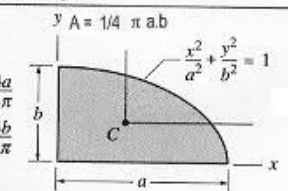


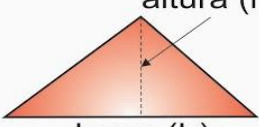
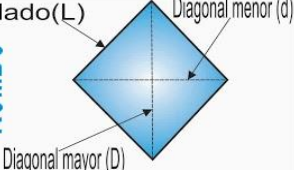


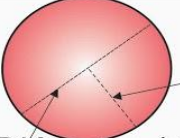
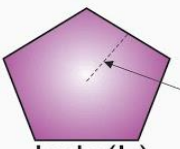


TABLAS DE ESTÁTICA

Área momento de inercia

| | | |
|---|--|---|
| <p>Rectángulo</p>  <p style="text-align: right;">$A = b \cdot h$</p> $\bar{I}_x = \frac{bh^3}{12} \quad \bar{I}_y = \frac{b^3h}{12} \quad \bar{I}_{xy} = 0$ $I_x = \frac{bh^3}{3} \quad I_y = \frac{b^3h}{3} \quad I_{xy} = \frac{b^2h^2}{4}$ | <p>Círculo</p>  <p style="text-align: right;">$A = \pi R^2$</p> $I_x = I_y = \frac{\pi R^4}{4} \quad I_{xy} = 0$ | <p>Media parabólica complementaria</p>  <p style="text-align: right;">$A = 1/3 b \cdot h$</p> <p style="text-align: right;">$\bar{x} = \frac{3b}{4}$ $\bar{y} = \frac{3h}{10}$</p> $\bar{I}_x = \frac{37bh^3}{2100} \quad I_x = \frac{bh^3}{21}$ $\bar{I}_y = \frac{b^3h}{80} \quad I_y = \frac{b^3h}{5}$ $\bar{I}_{xy} = \frac{b^2h^2}{120} \quad I_{xy} = \frac{b^2h^2}{12}$ |
| <p>Triángulo rectángulo</p>  <p style="text-align: right;">$A = 1/2 b \cdot h$</p> $\bar{I}_x = \frac{bh^3}{36} \quad \bar{I}_y = \frac{b^3h}{36} \quad \bar{I}_{xy} = -\frac{b^2h^2}{72}$ $I_x = \frac{bh^3}{12} \quad I_y = \frac{b^3h}{12} \quad I_{xy} = \frac{b^2h^2}{24}$ | <p>Semicírculo</p>  <p style="text-align: right;">$A = \frac{\pi R^2}{2}$</p> $\bar{I}_x = 0.10988R^4 \quad \bar{I}_{xy} = 0$ $I_x = I_y = \frac{\pi R^4}{8} \quad I_{xy} = 0$ | <p>Media parábola</p>  <p style="text-align: right;">$A = 2/3 b \cdot h$</p> <p style="text-align: right;">$\bar{x} = \frac{3b}{8}$ $\bar{y} = \frac{3h}{5}$</p> $\bar{I}_x = \frac{8bh^3}{175} \quad I_x = \frac{2bh^3}{7}$ $\bar{I}_y = \frac{19b^3h}{480} \quad I_y = \frac{2b^3h}{15}$ $\bar{I}_{xy} = \frac{b^2h^2}{60} \quad I_{xy} = \frac{b^2h^2}{6}$ |
| <p>Triángulo isósceles</p>  <p style="text-align: right;">$A = 1/2 b \cdot h$</p> $\bar{I}_x = \frac{bh^3}{36} \quad \bar{I}_y = \frac{b^3h}{48} \quad \bar{I}_{xy} = 0$ $I_x = \frac{bh^3}{12} \quad I_{yy} = 0$ | <p>Cuarto de círculo</p>  <p style="text-align: right;">$A = \frac{\pi R^2}{4}$</p> <p style="text-align: right;">$\bar{x} = \frac{4R}{3\pi}$ $\bar{y} = \frac{4R}{3\pi}$</p> $\bar{I}_x = \bar{I}_y = 0.05488R^4 \quad I_x = I_y = \frac{\pi R^4}{16}$ $\bar{I}_{xy} = -0.01647R^4 \quad I_{xy} = \frac{R^4}{8}$ | <p>Sector circular</p>  <p style="text-align: right;">$A = \alpha R^2$</p> <p style="text-align: right;">$\bar{x} = \frac{2R \text{sen } \alpha}{3\alpha}$</p> $I_x = \frac{R^4}{8} (2\alpha - \text{sen } 2\alpha)$ $I_y = \frac{R^4}{8} (2\alpha + \text{sen } 2\alpha)$ $I_{xy} = 0$ |
| <p>Triángulo</p>  <p style="text-align: right;">$\bar{x} = \frac{a+b}{3} \quad \bar{y} = \frac{h}{3}$</p> <p style="text-align: right;">$A = 1/2 b \cdot h$</p> $\bar{I}_x = \frac{bh^3}{36} \quad I_x = \frac{bh^3}{12}$ $\bar{I}_y = \frac{bh}{36} (a^2 - ab + b^2) \quad I_y = \frac{bh}{12} (a^2 + ab + b^2)$ $\bar{I}_{xy} = \frac{bh^2}{72} (2a - b) \quad I_{xy} = \frac{bh^2}{24} (2a + b)$ | <p>Cuarto de elipse</p>  <p style="text-align: right;">$A = 1/4 \pi a b$</p> <p style="text-align: right;">$\bar{x} = \frac{4a}{3\pi}$ $\bar{y} = \frac{4b}{3\pi}$</p> <p style="text-align: right;">$\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1$</p> $\bar{I}_x = 0.05488ab^3 \quad I_x = \frac{\pi ab^3}{16}$ $\bar{I}_y = 0.05488a^3b \quad I_y = \frac{\pi a^3b}{16}$ $\bar{I}_{xy} = -0.01647a^2b^2 \quad I_{xy} = \frac{a^2b^2}{8}$ | |

| | | |
|--|---|---|
| CUADRADO  lado(L) | ÁREA $A = L \times L$ | PERÍMETRO $P = L + L + L + L$ |
| RECTÁNGULO  base (b) altura (h) | ÁREA $A = b \times h$ | PERÍMETRO $P = b + b + h + h$ |
| TRIÁNGULO  base (b) altura (h) | ÁREA $A = \frac{b \times h}{2}$ | PERÍMETRO $P = L + L + L$ |
| ROMBO  lado(L) Diagonal menor (d) Diagonal mayor (D) | ÁREA $A = D \times d$ | PERÍMETRO $P = L + L + L + L$ |
| ROMBOIDE  base (b) altura (h) | ÁREA $A = b \times h$ | PERÍMETRO $P = b + b + h + h$ |
| TRAPECIO  base menor (b) lado(L) altura (h) base mayor (B) | ÁREA $A = \frac{h(B + b)}{2}$ | PERÍMETRO $P = B + b + L + L$ |
| CÍRCULO  radio (r) Diámetro (d) | ÁREA $A = \pi \times r^2$ | CIRCUNFERENCIA $C = \pi \times d$ |
| POLIGONO +5  lado(L) apotema (a) | ÁREA $A = \frac{p \times a}{2}$ | PERÍMETRO $P = L \times \# \text{ lados}$ |