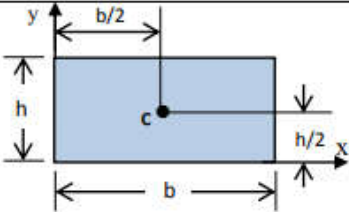
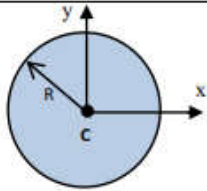
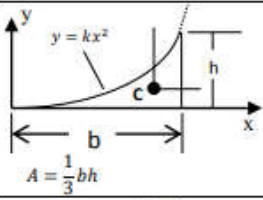
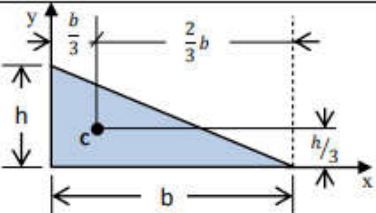
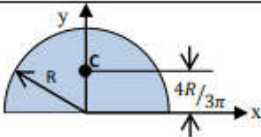
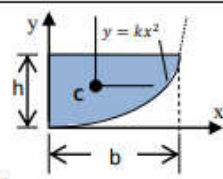
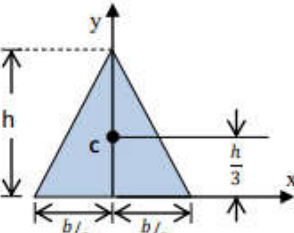
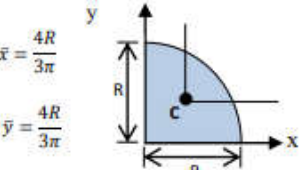
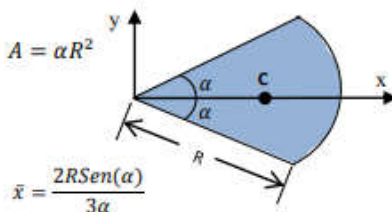
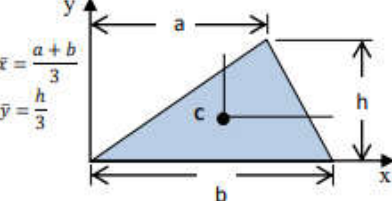
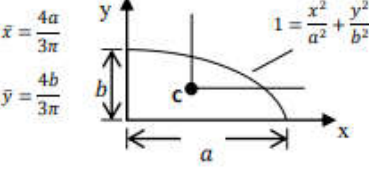




INTELIGENCIA ARTIFICIAL (IS229) FORMULAS DE CENTROIDE DE FIGURAS GEOMETRICAS

Rectángulo  $\bar{I}_x = \frac{bh^3}{12} \quad \bar{I}_y = \frac{b^3h}{12} \quad \bar{I}_{xy} = 0$ $I_x = \frac{bh^3}{3} \quad I_y = \frac{b^3h}{3} \quad I_{xy} = \frac{b^2h^2}{4}$	Círculo  $I_x = I_y = \frac{\pi R^4}{4} \quad I_{xy} = 0$	Media Parabólica complementaria  $\bar{I}_x = \frac{37bh^3}{2100} \quad I_x = \frac{bh^3}{21}$ $\bar{I}_y = \frac{b^3h}{80} \quad I_y = \frac{b^3h}{5}$ $\bar{I}_{xy} = \frac{b^2h^2}{120} \quad I_{xy} = \frac{b^2h^2}{12}$
Triángulo Rectángulo  $\bar{I}_x = \frac{bh^3}{36} \quad \bar{I}_y = \frac{b^3h}{36} \quad \bar{I}_{xy} = -\frac{b^2h^2}{72}$ $I_x = \frac{bh^3}{12} \quad I_y = \frac{b^3h}{12} \quad I_{xy} = \frac{b^2h^2}{24}$	Semicírculo  $\bar{I}_x = 0,1098R^4 \quad \bar{I}_{xy} = 0$ $I_x = I_y = \bar{I}_y = \frac{\pi R^4}{8} \quad I_{xy} = 0$	Media Parábola  $\bar{I}_x = \frac{8bh^3}{175} \quad \bar{I}_y = \frac{19b^3h}{480} \quad \bar{I}_{xy} = \frac{b^2h^2}{60}$ $I_x = \frac{2bh^3}{7} \quad I_y = \frac{2b^3h}{15} \quad I_{xy} = \frac{b^2h^2}{6}$
Triángulo Isósceles  $\bar{I}_x = \frac{bh^3}{36} \quad \bar{I}_y = \frac{b^3h}{48} \quad \bar{I}_{xy} = 0$ $I_x = \frac{bh^3}{12} \quad I_{xy} = 0$	Cuarto de círculo  $\bar{I}_x = \bar{I}_y = 0,05488R^4 \quad I_x = I_y = \frac{\pi R^4}{16}$ $\bar{I}_{xy} = -0,01647R^4 \quad I_{xy} = \frac{R^4}{8}$	Sector Circular  $I_x = \bar{I}_x = \frac{R^4}{8} (2\alpha - \text{sen}2\alpha)$ $I_y = \frac{R^4}{8} (2\alpha + \text{sen}2\alpha) \quad I_{xy} = 0$
Triángulo  $\bar{x} = \frac{a+b}{3} \quad \bar{y} = \frac{h}{3}$	Cuarto de elipse  $\bar{x} = \frac{4a}{3\pi} \quad \bar{y} = \frac{4b}{3\pi}$	

Referencia: <https://es.scribd.com/document/392292626/tabla-centroide-momento-inercia-150629050107-lva1-app6891-pdf>