Elementele geometriee ale unor suprafeţe plane

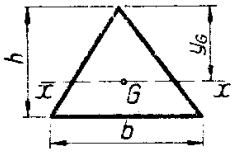
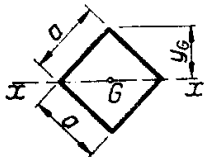
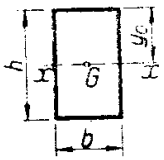
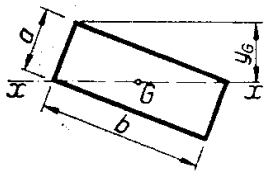
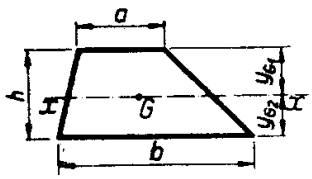
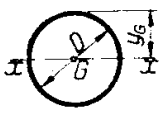
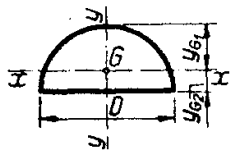
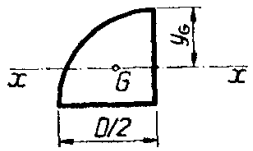
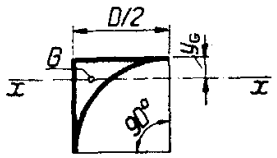
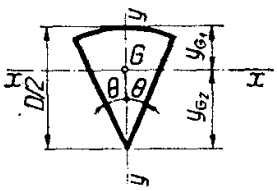
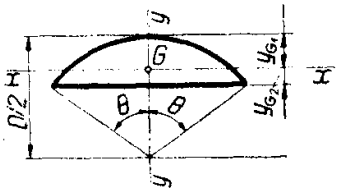
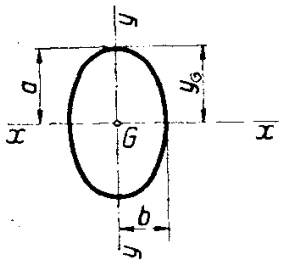
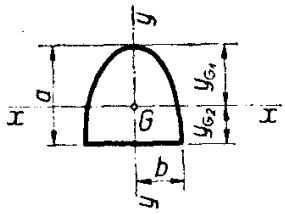
Figura de referinţă	Momentul de inerţie I_{Gx}	Coordonata centrului de greutate y_G	Aria A
	$\frac{bh^3}{36}$	$\frac{2}{3}h$	$\frac{1}{2}bh$
	$\frac{a^4}{12}$	$\frac{a\sqrt{2}}{2}=0{,}707a$	a^2
	$\frac{bh^3}{12}$	$\frac{1}{2}h$	bh
	$\frac{a^3b^3}{6(a^2+b^2)}$	$\frac{ab}{\sqrt{a^2+b^2}}$	ab
	$\frac{h^3}{36}\cdot\frac{a^2+4ab+b^2}{a+b}$	$y_{G_1}=\frac{h}{3}\cdot\frac{a+2b}{a+b}$ $y_{G_2}=\frac{h}{3}\cdot\frac{2a+b}{a+b}$	$\frac{1}{2}h(a+b)$
	$\frac{\pi D^4}{64}$	$\frac{D}{2}$	$\frac{\pi D^2}{4}$

Figura de referinţă	Momentul de inerţie	Coordonata centrului de greutate y_G	Aria A
	$I_{G_x} = 0{,}00218\ \pi D^4$ $I_{G_y} = \dfrac{\pi D^4}{128}$	$y_{G_1} = 0{,}2878\ D$ $y_{G_2} = 0{,}2122\ D$	$\dfrac{\pi D^2}{8}$
	$0{,}001094\ \pi D^4$	$0{,}2878\ D$	$\dfrac{\pi D^2}{16}$
	$0{,}000468\ D^4$	$0{,}1117\ D$	$0{,}05365\ D^2$
	$I_{G_x} = \dfrac{\theta D^4}{64}\left(1 + \dfrac{\sin 2\theta}{2\theta} - \dfrac{16\sin^3\theta}{9\theta^2}\right)$ $I_{G_y} = \dfrac{\theta D^4}{64}\left(1 - \dfrac{\sin 2\theta}{2\theta}\right)$	$y_{G_1} = \dfrac{D}{2}\left(1 - \dfrac{2\sin\theta}{3\theta}\right)$ $y_{G_2} = \dfrac{D}{3}\cdot\dfrac{\sin\theta}{\theta}$	$\dfrac{\theta D^2}{4}$ (θ în radiani)
	$I_{G_x} = \dfrac{D^4}{128}(2\theta - \sin 2\theta)\times$ $\times\left(1 + \dfrac{2\sin 2\theta\ \sin^2\theta}{2\theta - \sin 2\theta} - \dfrac{64\sin^6\theta}{9(2\theta - \sin 2\theta)^2}\right)$ $I_{G_y} = \dfrac{D^4}{128}(2\theta - \sin 2\theta)\times$ $\times\left(1 - \dfrac{2}{3}\cdot\dfrac{\sin 2\theta\ \sin^2 2\theta}{2\theta - \sin\theta}\right)$	$y_{G_1} =$ $= \dfrac{D}{2}\left(1 - \dfrac{4\sin^3\theta}{6\theta - 3\sin 2\theta}\right)$ $y_{G_2} = \dfrac{D}{2}\left(\dfrac{4\sin^3\theta}{6\theta - 3\sin 2\theta} - \cos\theta\right)$	$\dfrac{D^2}{8}\left(2\theta - \sin 2\theta\right)$ (θ în radiani)

	$I_{G_x} = \frac{\pi a^3 b}{4}$ $I_{G_y} = \frac{\pi a b^3}{4}$	a	πab
	$I_{G_x} = 0{,}09142\ a^3 b$ $I_{G_y} = 0{,}26672\ ab^3$	$y_{G1} = \frac{3}{5} a$ $y_{G2} = \frac{2}{5} a$	$\frac{\pi ab}{2}$