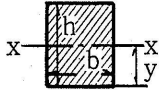
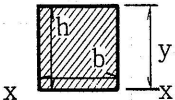
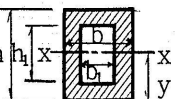
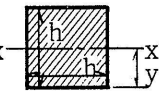
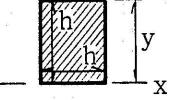
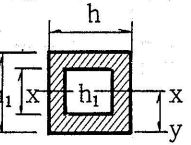
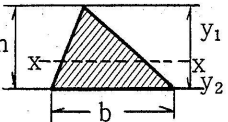
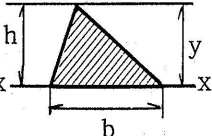
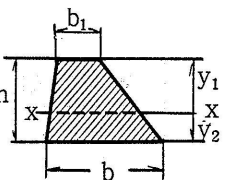
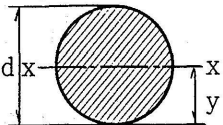
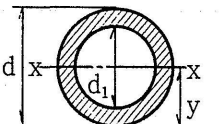
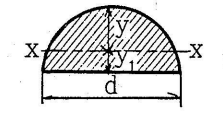
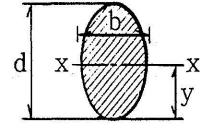
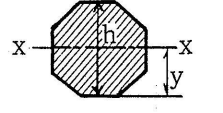
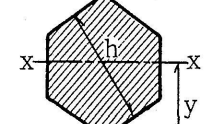
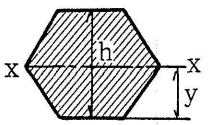
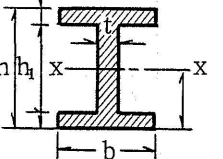
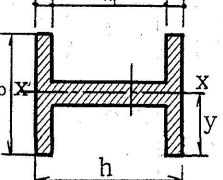


8-13 平面図形の諸表

図形	面積 F	図心より突線 に至る距離	慣性モーメン ト J_x	断面係数 W_x	回転半径 i_x
	bh	$y = \frac{h}{2}$	$\frac{bh^3}{12}$	$\frac{bh^2}{6}$	$\frac{h}{\sqrt{12}} = 0.289h$
	bh	$y = h$	$\frac{bh^3}{3}$	$\frac{bh^2}{3}$	$\frac{h}{\sqrt{3}} = 0.577h$
	$bh - b_1h_1$	$y = \frac{h}{2}$	$\frac{bh^3 - b_1h_1^3}{12}$	$\frac{bh^3 - b_1h_1^3}{6h}$	$\sqrt{\frac{bh^3 - b_1h_1^3}{12(bh - b_1h_1)}}$
	h^2	$y = \frac{h}{2}$	$\frac{h^4}{12}$	$\frac{h^3}{6}$	$\frac{4}{\sqrt{12}} = 0.289h$
	h^2	$y = h$	$\frac{h^4}{3}$	$\frac{h^3}{3}$	$\frac{h}{\sqrt{3}} = 0.577h$
	$h^2 - h_1^2$	$y = \frac{h}{2}$	$\frac{h^4 - h_1^4}{12}$	$\frac{h^4 - h_1^4}{6h}$	$\sqrt{\frac{h^2 + h_1^2}{12}}$
	$\frac{bh}{2}$	$y_1 = \frac{2h}{3}$ $y_2 = \frac{h}{3}$	$\frac{bh^3}{36}$	$W_1 = \frac{bh^2}{24}$ $W_2 = \frac{bh^2}{12}$	$\frac{h}{\sqrt{18}} = 0.236h$
	$\frac{bh}{2}$	$y = h$	$\frac{bh^3}{12}$	$\frac{bh^2}{12}$	$\frac{h}{\sqrt{6}} = 0.408h$
	$\frac{(b+b_1)}{2} h$	$y_1 = \frac{2b+b_1}{b+b_1} \cdot \frac{h}{3}$ $y_2 = \frac{b+2b_1}{b+b_1} \cdot \frac{h}{3}$	$\frac{b^2+4bb_1+b_1^2}{36(b+b_1)} \cdot h^3$	$W_1 = \frac{b_1^2+4b_1b+b^2}{12(b_1+2b)} h^2$ $W_2 = \frac{b_1^2+4b_1b+b^2}{12(2b_1+b)} h^2$	$\frac{h\sqrt{2(b^2+4bb_1+b_1^2)}}{6(b+b_1)}$ $\frac{+b_1^2)}{+b_1^2)}$

図形	面積 F	図心より突線 に至る距離	慣性モーメント J_x	断面係数 W_x	回転半径 i_x
	$\frac{\pi d^2}{4} = 0.785d^2$	$y = \frac{d}{2}$	$\frac{\pi d^4}{64} = 0.049d^4$	$\frac{\pi d^3}{32} = 0.098d^3$	$\frac{d}{4}$
	$\frac{\pi(d^2 - d_1^2)}{4}$	$y = \frac{d}{2}$	$\frac{\pi(d^4 - d_1^4)}{64} = 0.049(d^4 - d_1^4)$	$\frac{\pi(d_1^4 - d^4)}{32d} = \frac{0.098(d^4 - d_1^4)}{d}$	$\frac{\sqrt{d^2 + d_1^2}}{4}$
	$\frac{\pi d^2}{8} = 0.393d^2$	$y = \frac{(3\pi - 4)d}{6\pi} = 0.288d$ $y_1 = \frac{2d}{3\pi} = 0.212d$	$\frac{9x^3 - 64}{1125\pi} d^4 = 0.007d^4$	$\frac{9\pi^3 - 64}{192(3\pi - 4)} = 0.024d^4$	$\frac{\sqrt{9\pi^3 - 64}}{12\pi} \cdot d = 0.132d$
	$\frac{\pi db}{4} = 0.785bd$	$y = \frac{d}{2}$	$\frac{\pi db^3}{64} = 0.049bd^3$	$\frac{\pi bd^3}{32} = 0.093bd^3$	$\frac{d}{4}$
	$\frac{2h^3 \tan 22\frac{1}{2}^\circ}{0.828}$	$y = \frac{h}{2}$	$\frac{F}{12} \left[\frac{h^4(1+2\cos^2 22\frac{1}{2}^\circ)}{4\cos^2 22\frac{1}{2}^\circ} \right] = 0.055h^4$	$\frac{F}{6} \left[\frac{h(1+2\cos^2 22\frac{1}{2}^\circ)}{4\cos^2 22\frac{1}{2}^\circ} \right] = 0.109h^3$	$\frac{h}{4} \sqrt{\frac{1+2\cos^2 22\frac{1}{2}^\circ}{3\cos^2 22\frac{1}{2}^\circ}} = 0.257h$
	$\frac{3}{2}h^2 \tan 30^\circ = 0.866h^2$	$y = \frac{h}{2\cos 30^\circ} = 0.577h$	$\frac{F}{12} \left[\frac{h^4(1+2\cos^2 30^\circ)}{4\cos^2 30^\circ} \right] = 0.060h^4$	$\frac{F}{6} \left[\frac{h(1+2\cos^2 30^\circ)}{4\cos^2 30^\circ} \right] = 0.104h^3$	$\frac{h}{4} \sqrt{\frac{1+2\cos^2 30^\circ}{3\cos^2 30^\circ}} = 0.264h$
	$\frac{3}{2}h^2 \tan 30^\circ = 0.866h^2$	$y = \frac{\pi}{2}$	$\frac{F}{12} \left[\frac{h^4(1+2\cos^2 30^\circ)}{4\cos^2 30^\circ} \right] = 0.060h^4$	$\frac{F}{6} \left[\frac{h(1+2\cos^2 30^\circ)}{4\cos^2 30^\circ} \right] = 0.120h^3$	$\frac{h}{4} \sqrt{\frac{1+2\cos^2 30^\circ}{3\cos^2 30^\circ}} = 0.264h$
	$bh - h_1(b-t)$	$y = \frac{h}{2}$	$\frac{bh^3 - h_1^2(b-t)}{12}$	$\frac{bh^3 - h_1^3(b-t)}{6h}$	$\sqrt{\frac{bh^3 - h_1^3(b-t)}{12[bh - h_1(b-t)]}}$
	$bh - h_1(b-t)$	$y = \frac{b}{2}$	$\frac{2\pi b^3 + h_1 t^3}{12}$	$\frac{2\pi b^3 + h_1 t^3}{6b}$	$\sqrt{\frac{2\pi b^3 + h_1 t^3}{12[bh - h_1(b-t)]}}$