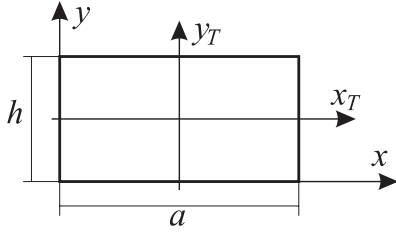# Vztrajnostni momenti osnovnih prerezov

- Pravokotnik
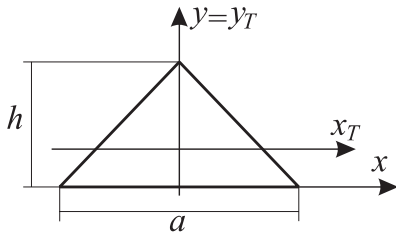

$$I_x = \frac{ah^3}{3}, \qquad I_{x_T} = \frac{ah^3}{12},$$

$$I_y = \frac{a^3h}{3}, \qquad I_{y_T} = \frac{a^3h}{12},$$

$$I_{xy} = \frac{a^2h^2}{4}, \qquad I_{x_Ty_T} = 0.$$
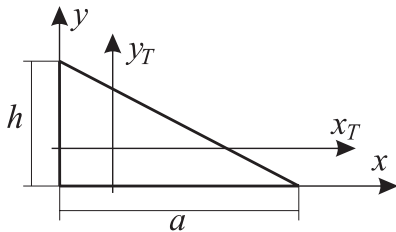
- enakokraki trikotnik

$$I_x = \frac{ah^3}{12}, \qquad I_{x_T} = \frac{ah^3}{36},$$

$$I_y = I_{y_T} = \frac{a^3h}{48},$$
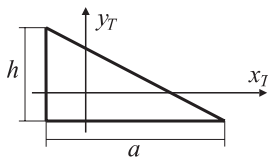
$$I_{xy} = I_{x_Ty_T} = 0.$$

- pravokotni trikotnik

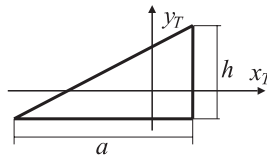$$I_x = \frac{ah^3}{12}, \qquad I_{x_T} = \frac{ah^3}{36},$$

$$I_y = \frac{a^3h}{12}, \qquad I_{y_T} = \frac{a^3h}{36},$$

$$I_{xy} = \pm\frac{a^2h^2}{24}, \qquad I_{x_Ty_T} = \pm\frac{a^2h^2}{72}.$$
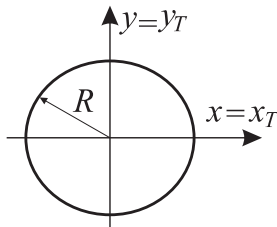
Opomba:

$$I_{x_Ty_T} = -\frac{a^2h^2}{72}$$
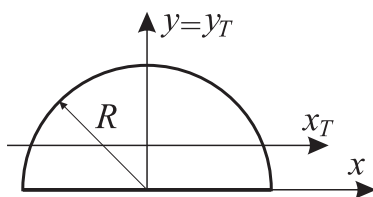

$$I_{x_Ty_T} = +\frac{a^2h^2}{72}$$

- krog

$$I_x = I_{x_T} = I_y = I_{y_T} = \frac{\pi R^4}{4},$$

$$I_{xy} = I_{x_Ty_T} = 0.$$

- polkrog

$$I_x = \frac{\pi R^4}{8}, \qquad I_{x_T} = \left(\frac{\pi}{8} - \frac{8}{9\pi}\right) R^4,$$

$$I_y = I_{y_T} = \frac{\pi R^4}{8},$$

$$I_{xy} = I_{x_Ty_T} = 0.$$

Morebitne napake prosim sporočite na naslov: miha.brojan@fs.uni-lj.si