

- 7.6 Ploština spremnika: $A = 2r\pi h + r^2\pi = 53,28 \text{ m}^2$, $z_S = \frac{h^2}{2h+r} = 1,91 \text{ m}$.
- 7.7 $A = \frac{a^2\pi}{8} = 56,55 \text{ cm}^2$, $y_S = \frac{16-3\pi}{6\pi} \cdot a = 4,186 \text{ cm}$, $z_S = \frac{2}{\pi} \cdot a = 7,64 \text{ cm}$.
- 7.8 $A = \frac{a^2}{4}(4-\pi) = 85,84 \text{ cm}^2$, $y_S = z_S = \frac{2a}{3(4-\pi)} = 15,533 \text{ cm}$.
- 7.9 Za $z_S = h$ slijedi kvadratna jednažba: $2h^2 - 6ah + 3a^2 = 0$, te slijedi $h = \frac{a}{2}(3 - \sqrt{3})$.
Numerički: $h = 25,36 \text{ cm}$, $A = 1092,8 \text{ cm}^2$.
- 7.10 $l = 177,1 \text{ cm}$, $x_S = 7,741 \text{ cm}$, $y_S = 15,447 \text{ cm}$, $z_S = 9,595 \text{ cm}$.
- 7.11 $l = 107,29 \text{ cm}$, $x_S = -9,556 \text{ cm}$, $y_S = -4,85 \text{ cm}$, $z_S = -8,36 \text{ cm}$.
- 7.12 $l = 42 \text{ cm}$, $y_S = 6,857 \text{ cm}$, $z_S = 3,286 \text{ cm}$.
- 7.13 $l = 34 \text{ cm}$, $y_S = 9,412 \text{ cm}$, $z_S = 3,71 \text{ cm}$.
- 7.14 $l = 37 \text{ cm}$, $y_S = -0,047 \text{ cm}$, $z_S = 0,597 \text{ cm}$.

7.2 DRUGI MOMENTI RAVNE POVRŠINE (MOMENTI TROMOSTI)

- 7.15 $A = 84,82 \text{ cm}^2$, $y_S = 0,85 \text{ cm}$, $z_S = -0,85 \text{ cm}$, $I_y = I_z = 702,292 \text{ cm}^4$,
 $I_{yz} = 223,147 \text{ cm}^4$, $I_{y'} = I_{z'} = \frac{3\pi}{16} \cdot R^4 = 763,407 \text{ cm}^4$, $I_1 = 925,439 \text{ cm}^4$,
 $I_2 = 479,145 \text{ cm}^4$, $\varphi_0 = -45^\circ$.
- 7.16 $A = 25,07 \text{ cm}^2$, $y_S = 3 \text{ cm}$, $z_S = 0$. $I_y = 46,874 \text{ cm}^4$, $I_z = 73,88 \text{ cm}^4$,
 $I_{yz} = -22,652 \text{ cm}^4$, $I_1 = 86,75 \text{ cm}^4$, $I_2 = 34 \text{ cm}^4$, $\varphi_0 = -29,6^\circ$.
- 7.17 $I_y = I_z = \frac{5}{6}a^4 = 1080 \text{ cm}^4$, $I_{yz} = -\frac{5}{12}a^4 = -540 \text{ cm}^4$, $I_1 = 1620 \text{ cm}^4$,
 $I_2 = 540 \text{ cm}^4$, $\varphi_0 = 45^\circ$.
- 7.18 $A = 813,735 \text{ cm}^2$, $y_S = 11,63 \text{ cm}$, $z_S = 17,46 \text{ cm}$, $I_y = 88788 \text{ cm}^4$,
 $I_z = 39350 \text{ cm}^4$, $I_{yz} = -2882 \text{ cm}^4$, $I_1 = 88955 \text{ cm}^4$, $I_2 = 39183 \text{ cm}^4$, $\varphi_0 = 3,325^\circ$.
- 7.19 $A = 164 \text{ cm}^2$, $y_S = 8 \text{ cm}$, $z_S = 7,5122 \text{ cm}$, $I_z = I_1 = 4690,67 \text{ cm}^4$,
 $I_y = I_2 = 2255,65 \text{ cm}^4$, $I_{yz} = 0$, $\varphi_0 = 0^\circ$.
- 7.20 $A = (6r)^2\pi - (\sqrt{2}r)^2\pi - 2 \cdot r^2\pi = 32r^2\pi$, $y_S = 0$, $z_S = \frac{r}{16}$, $I_y = I_2 = 296,375r^4\pi$,
 $I_z = I_1 = 314,5r^4\pi$, $I_{yz} = 0$, $\varphi_0 = 0^\circ$.
- 7.21 $A = 153 \text{ cm}^2$, $y_S = 6,353 \text{ cm}$, $z_S = 7,941 \text{ cm}$, $I_{y'} = 12704 \text{ cm}^4$, $I_{z'} = 8154 \text{ cm}^4$,
 $I_y = 3055 \text{ cm}^4$, $I_z = 1979 \text{ cm}^4$, $I_{yz} = -118,3 \text{ cm}^4$,
 $I_1 = 3068 \text{ cm}^4$, $I_2 = 1966 \text{ cm}^4$, $\varphi_0 = 6,2^\circ$.