

5.1.9 $J_x = 0,367 \text{ kg} \cdot \text{m}^2$

5.1.10 $J_{y1} = \frac{mr^2}{2},$

$$J_y = mr^2 \left(\frac{1}{2} - \frac{16}{9} \frac{\sin^2 \frac{\alpha}{2}}{\alpha^2} \right)$$

5.1.11 $J_x = 0,1987 \text{ kg} \cdot \text{m}^2$

5.1.12 $J_x = \frac{3mr^2}{2}$

5.1.13 $J_x = mr^2 \left(\frac{3}{2} - \frac{4}{\pi} \right)$

5.1.14 $J_z = 7\,736 \text{ kg} \cdot \text{cm}^2$

5.1.15 $x_S = 1 \text{ cm},$
 $J_z = 0,0185 \text{ kg} \cdot \text{m}^2$

5.1.16 $J_x = J_y = 1125 \text{ kg cm}^2,$
 $J_z = 4\,500 \text{ kg cm}^2$

**Rotacija krutog tijela
oko nepomične osi**

5.3.1 $F_{Ax} = 6,316 \text{ kN},$
 $F_{Ay} = -18,95 \text{ kN},$
 $F_{Bx} = 9,474 \text{ kN},$
 $F_{By} = -28,42 \text{ kN}.$

5.3.2 $F_A = -\frac{5}{6} maw^2, J_{xz} = 2ma^2$
 $F_B = -\frac{2}{3} maw^2$

5.3.3 $F_A = -0,1769 mlw^2,$
 $J_{yz} = ml^2 \left(1 - \frac{\sqrt{3}}{9} \right)$
 $F_B = -0,3231 mlw^2$

5.3.4 $F_A = \frac{7}{36} maw^2, J_{xz} = -\frac{5}{12} ma^2,$
 $F_B = \frac{5}{36} maw^2$

5.3.5 $J_{zx} = -4ml^2, J_{xy} = -2ml^2,$
 $J_{yz} = 0$

5.3.6 $F_A = F_B = 399,6 \text{ N}$

5.3.7 $F_S = 30,09 \text{ N}$

5.3.8 $a/b = -1/3$ (a mjereno ulijevo od
točke A)

5.3.9 $F_A = 18,1 \text{ N}, F_B = -248,1 \text{ N}$

5.3.10 $F_A = 653,57 \text{ N}, F_B = 598,42 \text{ N}$

5.3.11 $F_B = -10\,222 \text{ N}, F_A = -57\,790 \text{ N}$

5.3.12 $F_{Ay} = 253 \text{ kN}, F_{Ax} = 160 \text{ kN},$
 $F_A = 299,6 \text{ kN}, F_{By} = 107 \text{ kN},$
 $F_{Bx} = 280 \text{ kN}, F_B = 299,6 \text{ kN}$

5.3.13 $F_A = -1\,875 \text{ N}, F_B = -2\,625 \text{ N}$

5.3.14 $F_A = -1\,279 \text{ N}, F_B = 596,9 \text{ N}$

5.3.15 $F_A = -1\,386 \text{ N}, F_B = -3\,653 \text{ N}$

5.3.16 $F_A = -34,45 \text{ N}, F_B = -28,63 \text{ N}$

5.3.17 $F_A = 3,36 \text{ N}, F_B = -3,36 \text{ N}$

5.3.18 $\alpha = 2,87 \text{ rad/s}^2,$
 $a_1 = 0,432 \text{ m/s}^2,$
 $a_2 = 0,576 \text{ m/s}^2,$
 $F_{S1} = 143,4 \text{ kN},$
 $F_{S2} = 105,9 \text{ kN}$

5.3.19 $v_A = 1,253 \text{ m/s}$