

$$2.4.3 \quad a = 2,436 \text{ m/s}^2, t = 1,812 \text{ s}, \\ v = 4,415 \text{ m/s}, \\ S = 18,74 \text{ N, uz} \\ a = 0, \mu_1 = 0,341$$

$$2.4.4 \quad a = 5,4249 \text{ m/s}^2, \\ S_1 = 65,3 \text{ N}, \\ S_2 = 89,4 \text{ N}$$

$$2.4.5 \quad F = 34,85 \text{ N}$$

$$2.4.6 \quad a = 6,517 \text{ m/s}^2, S_1 = 3,745 \text{ N}, \\ S_2 = 16,463 \text{ N}, \\ a_1 = 7,0935 \text{ m/s}^2$$

$$2.4.7 \quad a = 3,772 \text{ m/s}^2, \\ F_0 = 5,662 \text{ N (vlak)}, \\ l = 0,5056 \text{ m}$$

$$2.4.8 \quad F_{S_0}/F_S = (2 \cdot \cos^2 \alpha)^{-1}$$

$$2.4.9 \quad a = 1,984 \text{ m/s}^2, s = 194,5 \text{ m}, \\ F_p = 8168 \text{ N}, \\ F_z = 8018 \text{ N}, F_a = 3629,7 \text{ N}$$

$$2.4.10 \quad S_{CD} = 24,55 \text{ N}, S_{EF} = 62,05 \text{ N}$$

$$2.4.11 \quad a = \frac{g [F_{G1} - F_G + q(2x - l)]}{[F_G + F_{G1} + ql]}$$

$$v_1^2 = \frac{2gl [F_{G1} - F_G]}{[F_G + F_{G1} + ql]}$$

$$F_S = F_{S1} = 2(F_{G1} + qx) \cdot \\ \frac{F_G + q(l - x)}{F_G + F_{G1} + ql}$$

$$2.4.12 \quad a = g \cdot \frac{x}{l} \cdot \sin \alpha,$$

$$v = \sqrt{g \cdot l \cdot \sin \alpha}$$

$$2.4.13 \quad \text{a) } a_A = 1,095 \text{ m/s}^2, \\ a_B = 0,981 \text{ m/s}^2, \\ \text{b) } a_A = a_B = 0,667 \text{ m/s}^2$$

$$2.4.14 \quad a = 0,366g$$

$$2.4.15 \quad a_A = 7,9503 \text{ m/s}^2, \text{ (desno)}, \\ a_B = 8,033 \text{ m/s}^2, \text{ (dolje desno)}, \\ S = 24,95 \text{ N}$$

$$2.4.16 \quad a_A = 0,7664 \text{ m/s}^2, S = 137,95 \text{ N}$$

$$2.4.17 \quad \omega_{\min} = 2,557 \text{ rad/s}, \\ \omega_{\max} = 7,672 \text{ rad/s}$$

$$2.4.18 \quad N_A = 3383 \text{ N}, \\ N_B = 1617 \text{ N}$$

$$2.4.19 \quad F_d = 273,9 \text{ kN}, \\ F_v = 45,03 \text{ kN}$$

$$2.4.20 \quad S_1 = 1,39 \text{ kN}, a_t = 0,5\sqrt{2}g$$

$$2.4.21 \quad D_{\text{poč}} = 3,25 \text{ kN } (40,5^\circ), \\ D_{\text{kraj}} = 2,20 \text{ kN } (73,7^\circ)$$

$$2.4.22 \quad T = 2\pi \left(1 + \frac{h}{\sqrt{R_0}} \right) \sqrt{\frac{R_0 + h}{g_0}}$$

$$2.4.23 \quad h = 0,6076 \text{ m}$$

$$2.4.24 \quad s = 194,1 \text{ m}$$

Rad i snaga sile, energija čestice

$$2.5.1 \quad P = 220,725 \text{ kW}$$

$$2.5.2 \quad W = 8,72 \text{ J}$$

$$2.5.3 \quad v = 2,83 \text{ m/s}, x_{\max} = 5,33 \text{ m}$$

$$2.5.4 \quad \cos \varphi = \frac{2}{3} + \frac{v_0^2}{3 \cdot g \cdot R},$$

$$v_0 = v_0 = \sqrt{g \cdot R}, b = R/4$$