

$1. V_1 = 1 \text{ L} = 1 \text{ dm}^3 = 0,001 \text{ m}^3$	1 bod
$m = \rho V = 0,789 \text{ kg}$	1 bod
$Q = Pt$	1 bod
$Q = 75\,000 \text{ J}$	1 bod
$Q = mc\Delta T$	1 bod
$\Delta T = 40,55 \text{ K}$	1 bod
$T_2 = 60,55 \text{ °C}$	1 bod
$\Delta V = 0,11\% V_1 \cdot \Delta T$	1 bod
$V_2 = V_1 + \Delta V$	1 bod
$V_2 = 1,0446 \text{ dm}^3$	1 bod
$\rho_2 = 755,31 \text{ kg/m}^3$	2 boda

$2. F_{tr} = \mu mg$	1 bod
$F_{tr \text{ lokomotiva}} = 0,48 \text{ N}$	1 bod
$F_{tr \text{ vagon}} = 0,3 \text{ N}$	1 bod
$F_{vučno} = F_{tr \text{ lokomotiva}} + 3 F_{tr \text{ vagon}}$	2 boda
$F_{vučno} = 1,38 \text{ N}$	1 bod
$F = kx$	1 bod
$F_c = F_{tr \text{ vagon}} \quad x_c = 0,005 \text{ m}$	1 bod
$l_c = 2,5 \text{ cm}$	1 bod
$F_B = 2 \cdot F_{tr \text{ vagon}} \quad x_B = 0,01 \text{ m}$	1 bod
$l_B = 3 \text{ cm}$	1 bod
$F_A = 3 \cdot F_{tr \text{ vagon}} \quad x_A = 0,015 \text{ m}$	1 bod
$l_A = 3,5 \text{ cm}$	1 bod

$3. U = RI$	1 bod
$R_S = R_1 + R_2 + R_{AB}$	1 bod
a) $R_{AB} = 0 \text{ } \Omega$	1 bod
$R = 2950 \text{ } \Omega$;	1 bod
b) $I = 0,75 \text{ mA}$;	2 boda
c) $R_x = 3000 \text{ } \Omega$	2 boda

4. $s = vt$	1 bod
$t_{Maša} = 700 \text{ s}$	1 bod
$t_{Maša} = t_{ptičica}$	3 boda
$s_{ptičica} = 1960 \text{ m}$	2 boda
5. $a = \frac{v_2 - v_1}{t_2 - t_1}$	1 bod
$\bar{v} = \frac{s}{t}$	1 bod
$\Delta t = T = \frac{1}{f} = 0,1 \text{ s}$	1 bod
$a = 8 \text{ m/s}^2$	1 bod
$ma = mg - F_{otpor}$	1 bod
$W = F_{otpor} \cdot s$	1 bod
$F_{otpor} = 0,22 \text{ N}$	1 bod
$E_{početno} = mgh = 0,704 \text{ J}$	1 bod
$E_{kC} = E_{početno} - W - E_{gpC}$	1 bod
$E_{kC} = 0,3168 \text{ J}$	1 bod