

$$R_1 = 100 \Omega$$

$$R_2 = 10 \Omega$$

$$U = 22 \text{ V}$$

$$I = ?$$

КОД РЕДНЕ БЕЗЕ У ОБАКОМ ПОТРОШАУ ПРОТЧУГ УСТА СТРУЈА

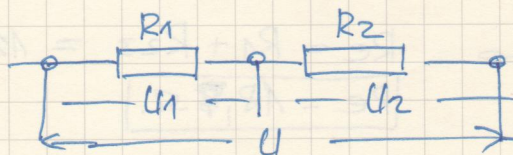
$$U = I \cdot R_e = I \cdot (R_1 + R_2) \Rightarrow I = \frac{U}{R_1 + R_2} = \frac{22 \text{ V}}{100 \Omega + 10 \Omega} = \boxed{0,2 \text{ A}}$$

$$R_1 = 5 \Omega$$

$$R_2 = 1 \Omega$$

$$U_2 = 0,3 \text{ V}$$

$$U_1 = ?$$



$$U_1 = I \cdot R_1$$

$$U_2 = I \cdot R_2$$

$$I = \frac{U_1}{R_1} = \frac{U_2}{R_2} \Rightarrow U_2 R_2 = U_2 R_1 \Rightarrow U_1 = \frac{U_2 R_1}{R_2} = \boxed{1,5 \text{ V}}$$

$$S = 0,1 \text{ cm}^2 = 10^{-1} \cdot 10^{-6} \text{ m}^2 = 10^{-7} \text{ m}^2$$

$$U = 10 \text{ V}$$

$$I = 16 \text{ A}$$

$$\rho = ?$$

$$l_1 = 1 \text{ m}$$

$$l_2 = 2 \text{ m}$$

ЖУЧЕ ОУ БЕЗАТГ РЕДНО НА
ЈЕ $R_e = R_1 + R_2$

$$R_1 = \frac{\rho l_1}{S} \text{ — ОТНОШНОСТ ПРОБЕ ЖУЧЕ}$$

$$R_2 = \frac{\rho l_2}{S} \text{ — ОТНОШНОСТ ДРУГЕ ЖУЧЕ}$$

$$U = I \cdot R_e = I \cdot (R_1 + R_2) = I \cdot \frac{\rho(l_1 + l_2)}{S} = \frac{\rho I (l_1 + l_2)}{S}$$

$$\rho I (l_1 + l_2) = U \cdot S$$

$$\rho = \frac{U S}{I (l_1 + l_2)} = \frac{10 \text{ V} \cdot 10^{-7} \text{ m}^2}{16 \text{ A} \cdot (1 \text{ m} + 2 \text{ m})} = \frac{10^{-6} \text{ V m}^2}{48 \text{ A m}} = 0,021 \cdot 10^{-6} \Omega \text{ m}$$

$$\boxed{\rho = 2,1 \cdot 10^{-8} \Omega \text{ m}}$$

$$R_1 = 10 \Omega$$

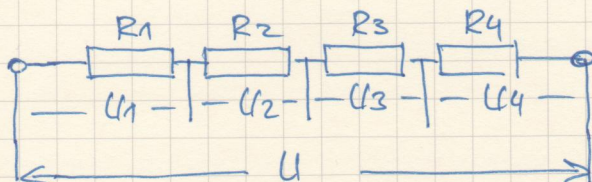
$$R_2 = 15 \Omega$$

$$R_3 = 17 \Omega$$

$$R_4 = 30 \Omega$$

$$U_3 = 34 \text{ V}$$

$$U = ?$$



$$U_3 = I \cdot R_3$$

$$I = \frac{U_3}{R_3} = \frac{34 \text{ V}}{17 \Omega}$$

$$\boxed{I = 2 \text{ A}}$$

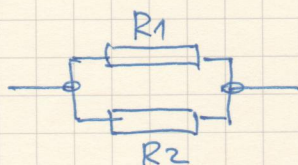
$$U = I \cdot R_e = I \cdot (R_1 + R_2 + R_3 + R_4) = 2 \text{ A} (10 \Omega + 15 \Omega + 17 \Omega + 30 \Omega)$$

$$U = 2 \text{ A} \cdot 72 \Omega = \boxed{144 \text{ V}}$$

$$R_1 = 100 \Omega$$

$$R_2 = 1 \Omega$$

$$R_e = ?$$



$$\frac{1}{R_e} = \frac{1}{R_1} + \frac{1}{R_2} = \frac{R_2 + R_1}{R_1 R_2}$$

$$R_e = \frac{R_1 R_2}{R_1 + R_2} = \frac{100 \Omega^2}{101 \Omega} = \boxed{0,99 \Omega}$$

$$\frac{1}{R_e} = \frac{1}{R_1} + \frac{1}{R_2} = \frac{1}{100 \Omega} + \frac{1}{1 \Omega} = \frac{1 + 100}{100 \Omega} = \frac{101}{100 \Omega}$$

$$R_e = \frac{100 \Omega}{101} = \boxed{0,99 \Omega}$$

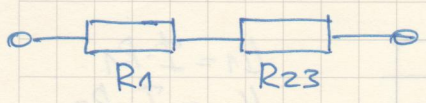
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$R_1 = 12 \Omega$
 $R_2 = 20 \Omega$
 $R_3 = 10 \Omega$
 $R_e = ?$



МЕМОБУТА RG3A
ОТНОФУКА

$$\frac{1}{R_{e23}} = \frac{1}{R_2} + \frac{1}{R_3} \Rightarrow R_{23} = \frac{R_2 \cdot R_3}{R_2 + R_3} = \frac{200 \Omega^2}{30 \Omega} = 6,7 \Omega$$



$$R_e = R_1 + R_{23} = 12 \Omega + 6,7 \Omega$$

$$R_e = 18,7 \Omega$$