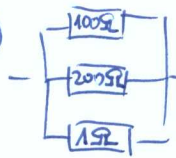
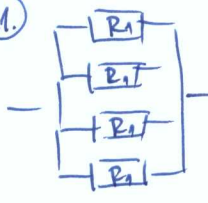




UZPOREDNA VEZAVA UPORNIKOU, U. str. 131

10.  $\frac{1}{R} = \frac{1}{R_1} + \frac{1}{R_2} + \frac{1}{R_3} = \frac{1}{100} + \frac{1}{200} + \frac{1}{1} = 1,015 \Rightarrow R = \frac{1}{1,015} = \underline{0,98\Omega}$
 odg. **A**

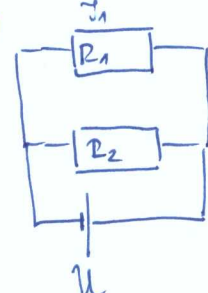
11.  $R_1 = 500\Omega$

a)  $\frac{1}{R} = \frac{1}{500} + \frac{1}{500} = \frac{2}{500} \Rightarrow R = \frac{500}{2} = 250\Omega$
 skupni R dveh vzp. v. upornikov je $\frac{R}{2} = 250\Omega$

b) se skupni R še zmanjša \rightarrow tretjina R

c) max R \rightarrow ZAPOREDNA VEZAVA
 $R = 4 \times 500 = \underline{2000\Omega}$
 min R

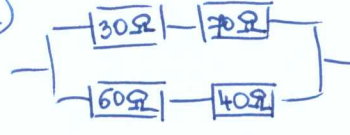
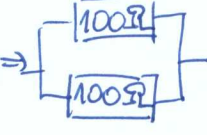
$R = \frac{500}{4} = \underline{125\Omega}$


12.  $R_1 = 500\Omega$
 $R_2 = 1000\Omega$
 $I_1 = 0,2A$

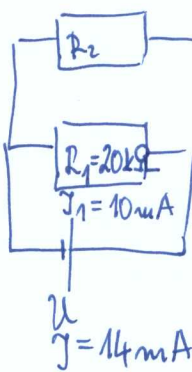
$U_1 = R_1 \cdot I_1 = 500\Omega \cdot 0,2A = \underline{100V}$
 $U_2 = \underline{100V}$

a) $U = \underline{100V}$
 b) $I_2 = \frac{U_2}{R_2} = \frac{100V}{1000\Omega} = \underline{0,1A}$
 c) $I = I_1 + I_2 = 0,2A + 0,1A = \underline{0,3A}$

VZP. VEB.
 $U = U_1 = U_2$
 $I = I_1 + I_2$
 $\frac{1}{R} = \frac{1}{R_1} + \frac{1}{R_2}$

13.  najprej izračunam za vsake veje posebej, ker je vezava zaporedna, dobim \Rightarrow  $\Rightarrow \frac{1}{R_s} = \frac{1}{100} + \frac{1}{100} = \frac{2}{100}$
 \downarrow
 $R_s = \frac{100}{2} = \underline{50\Omega}$

14.  $\frac{1}{R} = \frac{1}{R_1} + \frac{1}{R_2} = \frac{1}{100} + \frac{1}{400} = \frac{4}{400} + \frac{1}{400} = \frac{5}{400} \Rightarrow R = \frac{400}{5} = \underline{80\Omega}$

15.  $R_1 = 20k\Omega = 20000\Omega$
 $I_1 = 10mA = 0,01A$

$U_1 = R_1 \cdot I_1 = 20000\Omega \cdot 0,01A = \underline{200V}$
 $U = U_1 = U_2 \Rightarrow \underline{U = 200V}$
 $\underline{U_2 = 200V}$

ker je $I = 14mA$ in $I_1 = 10mA \Rightarrow I_2 = 4mA = \underline{0,004A}$
 \downarrow
 $R_2 = \frac{U_2}{I_2} = \frac{200V}{0,004A} = \underline{50000\Omega}$