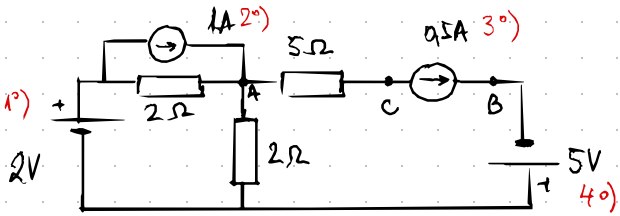
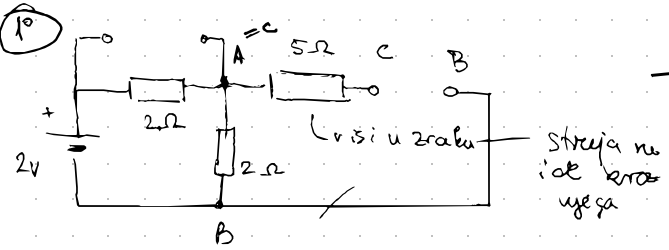
11.4. METODA SUPERPOZICIJE

„jedan ugasimo, gledamo drugi"

Primjer LJIR 19./20.) (12.) $U_{CB}=?$ Strujni izvor: postaje rupa

naponski izvor: postaje žica

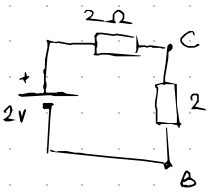




— budući da je struja kroz (5Ω) (otporno c) $\Rightarrow 0$, onda c možemo prenijeti na prijé otpornika jer on nije bitan $\rightarrow \varphi_A = \varphi_C$

Tražimo U_{CB} $\Rightarrow$ ▽ bitan je predznak

$\varphi_C - \varphi_B = U_{CB} \rightarrow \varphi_C > \varphi_B$



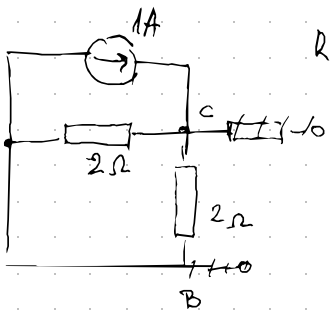
$\rightarrow U_{CB} = I_{uk} \cdot 2\Omega$

$\Rightarrow U_{CB} = 1V$

možemo preko $I_{uk} = \frac{2}{4} = \frac{1}{2}A$

* ili preko naponskog djelila

(2°)



R_{uk} → paralela

$R_{uk} = 1\Omega$

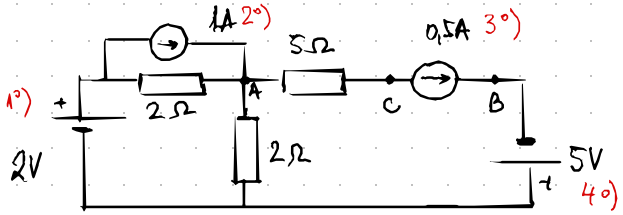
$U_{CB} = U_k = 1 \cdot 1A$ (konst)

$U_{CB} = 1V$

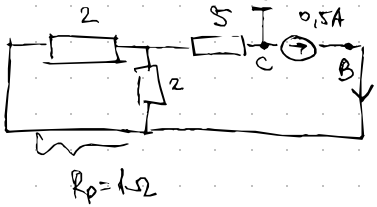
2. način — možemo granat struju

$I_2 = I_{uk} \frac{2}{2+2} = 1 \cdot \frac{1}{2} = \frac{1}{2}A$

$U_{CB} = \frac{1}{2} \cdot 2 = 1V$



3°)



$R_{uk} = 6\Omega$

$U_{uk} = R_{uk} \cdot I_{uk} = 0{,}5 \cdot 6$

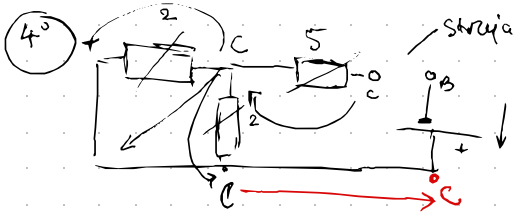
$U_{uk} = 3V$

ovdje paziti na predznak!

$\varphi_C - \varphi_B = -3V$

$U_{CB}''' = -3V$

4°)



strujа ne teče

$\varphi_B = 0V$

$\varphi_C = 5V$

$\varphi_C - \varphi_B = U_{CB}'''' = 5V$

$U_{CB} = U_{CB}' + U_{CB}'' + U_{CB}''' + U_{CB}'''' = 4V$