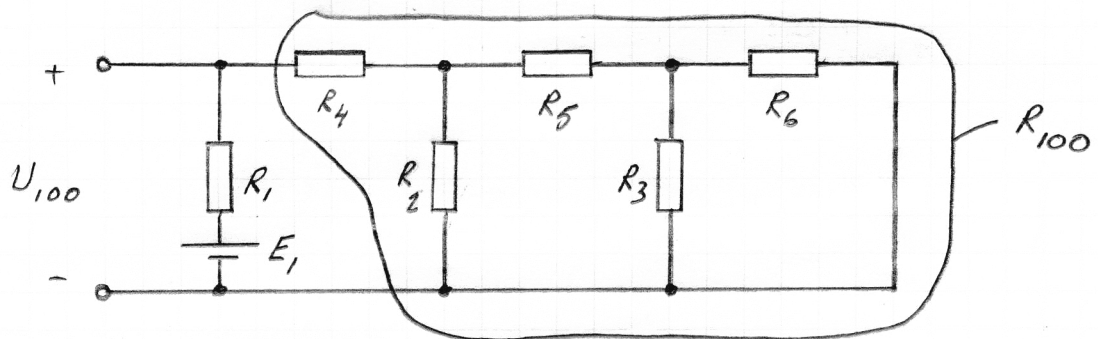


A1.15

ABC / LÄGENA 100  $\Rightarrow$



" SPÄNNINGSDELNINGSLAGEN  $\Rightarrow$

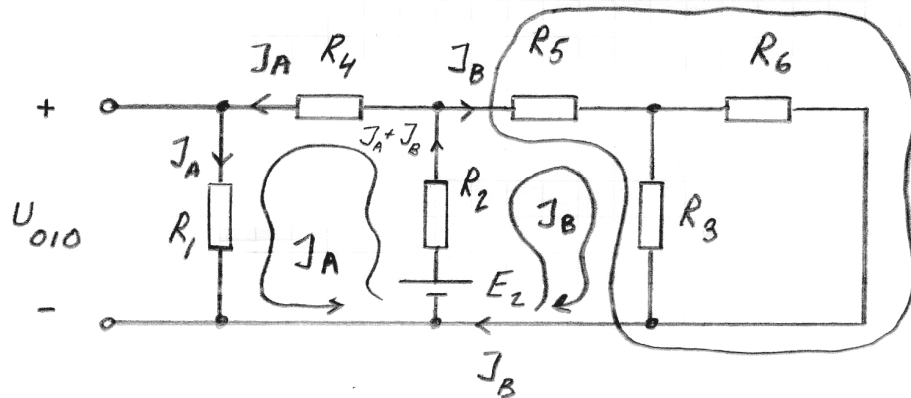
$$U_{100} = E_1 \cdot \frac{R_{100}}{R_1 + R_{100}}$$

$$\text{DÄR } R_{100} = R_4 + \left( \frac{1}{R_2} + \frac{1}{R_5 + \frac{R_3 R_6}{R_3 + R_6}} \right)^{-1}$$

$$\Rightarrow R_{100} \approx 287 \Omega$$

$$\Rightarrow U_{100} = 66 \cdot \frac{287}{300 + 287} \approx \underline{\underline{32,2 \text{ V}}}$$

ABC | LAGENA 010  $\Rightarrow$



SLINGANALYS  $\Rightarrow$

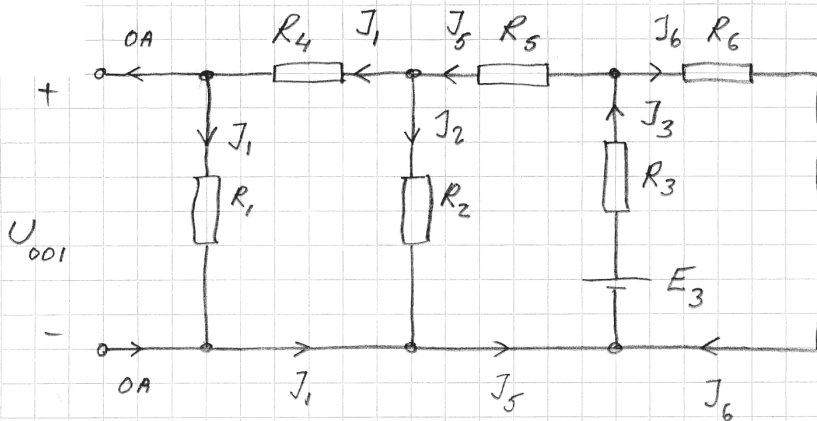
$$+ E_2 - R_2 (J_A + J_B) - R_4 J_A - R_1 J_A = 0 \dots (A)$$

$$+ E_2 - R_2 (J_A + J_B) - \left( R_5 + \frac{R_3 R_6}{R_3 + R_6} \right) \cdot J_B = 0 \dots (B)$$

$$\Rightarrow J_A = 52,4 \text{ mA} \quad J_B = 59,7 \text{ mA}$$

$$\text{OHMS LAS} \Rightarrow U_{010} = R_1 J_A \Rightarrow U_{010} = 15,8 \text{ V}$$

ABC | LÄGENA 001 →



OHMS LAG →  $U = R_{001} J_1 \rightarrow U = 300 J_1 \dots (1)$

STROMDELNINGSLAGEN →  $J_1 = J_5 \cdot \frac{R_2}{(R_1 + R_4) + R_2} \rightarrow J_1 = 0,50 J_5 \dots (2)$

→  $J_5 = J_3 \cdot \frac{R_6}{\left\{ R_5 + \frac{R_2 \cdot (R_1 + R_4)}{R_2 + (R_1 + R_4)} \right\} + R_6}$

300 Ω ←

⇒  $J_5 = 0,625 J_3 \dots (3)$

OHMS LAG →  $J_3 = \frac{E_3}{R_3 + \frac{R_6 \cdot \{ \}}{R_6 + \{ \}}}$

300 Ω ←

→  $J_3 = 0,096 \text{ A}$

$$I_{NS} \text{ I (3)} \rightarrow J_5 = 0,060 \text{ A}$$

$$I_{NS} \text{ I (2)} \rightarrow J_1 = 0,030 \text{ A}$$

$$I_{NS} \text{ I (1)} \rightarrow \underline{U_{001} = 9,00 \text{ V}}$$

$$U_{000} = 0,00 \text{ V}$$

$$U_{001} = 9,00 \text{ V}$$

$$U_{010} = 15,8 \text{ V}$$

$$U_{011} = U_{001} + U_{010} = 24,8 \text{ V}$$

$$U_{100} = 32,2 \text{ V}$$

$$U_{101} = U_{100} + U_{001} = 41,2 \text{ V}$$

$$U_{110} = U_{100} + U_{010} = 48,0 \text{ V}$$

$$U_{111} = U_{100} + U_{010} + U_{001} = 57,0 \text{ V}$$