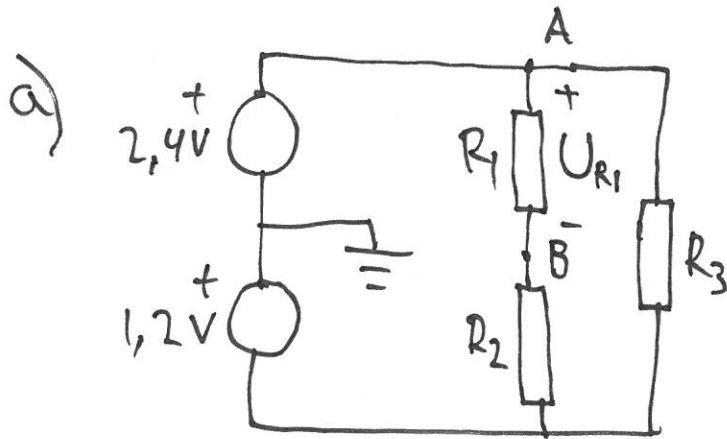


1-10)



$$R_1 = R_2 = 5 \text{ k}\Omega$$

$$R_3 = 10 \text{ k}\Omega$$

$$V_A = 2,4 \text{ V}$$

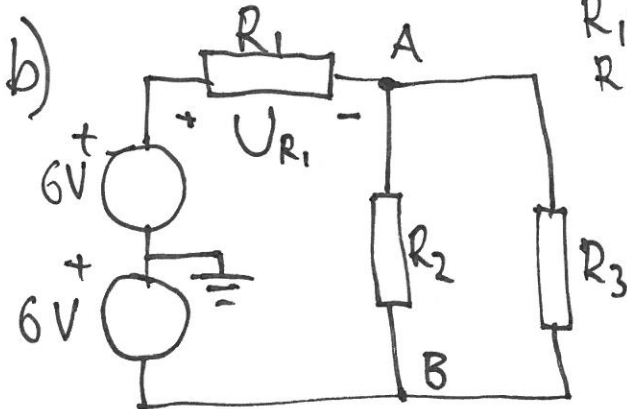
Spannungsdehnung:

$$U_{R_1} = \frac{3,6 \cdot R_1}{R_1 + R_2} = \frac{3,6 \cdot 5\text{k}}{5\text{k} + 5\text{k}} = 3,6 \cdot \frac{1}{2} = 1,8 \text{ V}$$

$$V_B = V_A - 1,8 = 0,6 \text{ V}$$

$$V_A = 2,4 \text{ V}$$

$$V_B = 0,6 \text{ V}$$



$$R_1 = R_2 = 10 \Omega$$

$$R_3 = 40 \Omega$$

Spannungsdehnung:

$$U_{R_1} = \frac{R_1 \cdot 12}{R_1 + R_2 \parallel R_3} = \frac{10 \cdot 12}{10 + \frac{10 \cdot 40}{10 + 40}} = \frac{120}{18} = 6,67 \text{ V}$$

$$V_A = 6 - 6,67 = -0,67 \text{ V}$$

$$V_B = -6 \text{ V}$$

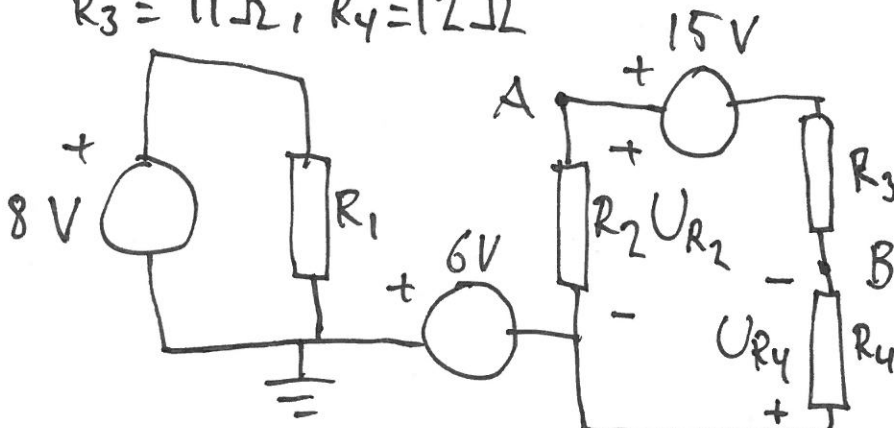
$$V_A = -0,67 \text{ V}$$

$$V_B = -6 \text{ V}$$

c)

$$R_1 = 16 \Omega, R_2 = 7 \Omega$$

$$R_3 = 11 \Omega, R_4 = 12 \Omega$$



Spannungsdehnung:

$$U_{R_2} = \frac{15 \cdot 7}{7 + 11 + 12} = \frac{15 \cdot 7}{30} = 3,5 \text{ V}$$

$$U_{R_4} = \frac{15 \cdot 12}{30} = 6 \text{ V}$$

$$V_A = -2,5 \text{ V}$$

$$V_B = -12 \text{ V}$$

$$V_A = -6 + 3,5 = -2,5 \text{ V} \quad V_B = -6 - 6 = -12 \text{ V}$$