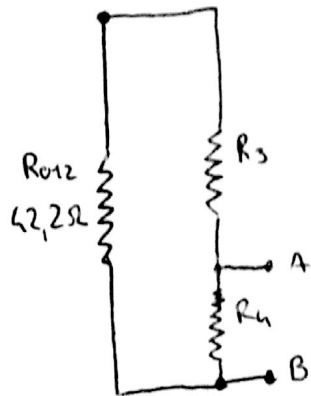


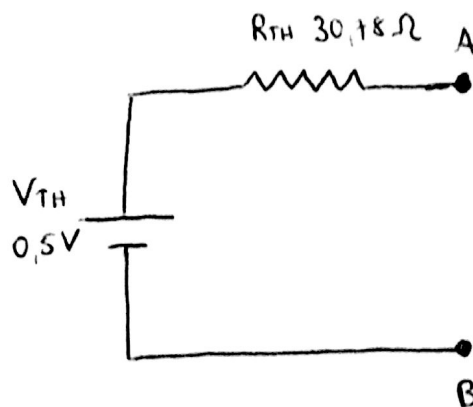
R_{TH}

$$R_{012} = \frac{(5+68) \cdot 100}{(5+68)+100} = 42,1465 \Omega$$



$$R_{0123} = R_{012} + R_3 = 42,1465 + 47 = 89,1465 \Omega$$

$$R_{TH} = \frac{R_{0123} \cdot R_4}{R_{0123} + R_4} = \frac{89,1465 \cdot 47}{89,1465 + 47} = 30,78 \Omega$$



V_{TH}

$$I_1 + I_2 = I_3$$

$$\frac{E - V_1}{R_0 + R_1} + \frac{-V_1}{R_2} = \frac{V_1}{R_3 + R_4}$$

$$\frac{10 - V_1}{73} + \frac{-V_1}{100} = \frac{V_1}{94}$$

$$V_1 = 3,989 \text{ V}$$

$$V_{TH} = V_1 \cdot \frac{R_4}{R_3 + R_4} = 3,989 \cdot \frac{47}{47+47} = 0,5 \text{ V}$$