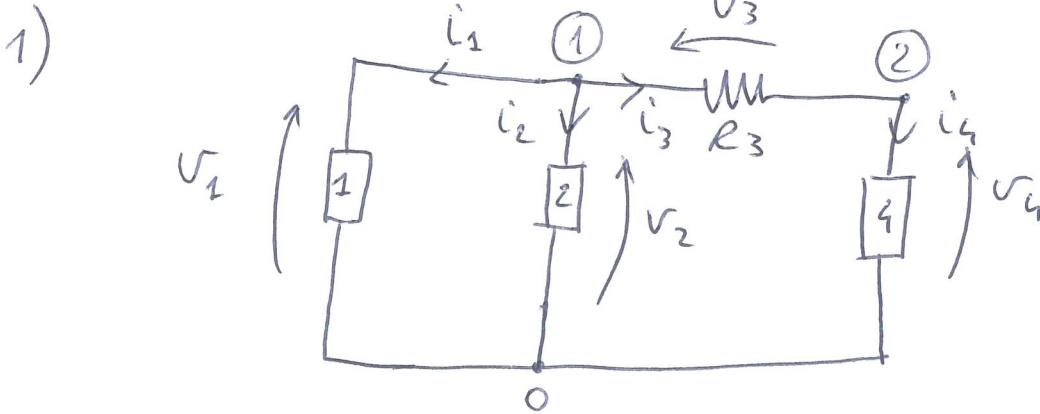
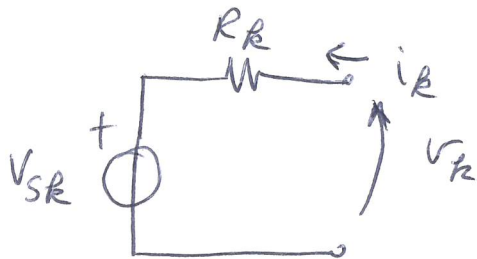


LEGGI DI KIRCHHOFF



4 correnti } 8 variabili
4 tensioni }

$\left\{ \begin{array}{l} \text{IK} : 2 \text{ equazioni} \\ \text{IIK} : 2 \text{ equazioni} \\ \text{ot.} : 4 \text{ equazioni} \end{array} \right\} 8 \text{ equazioni}$

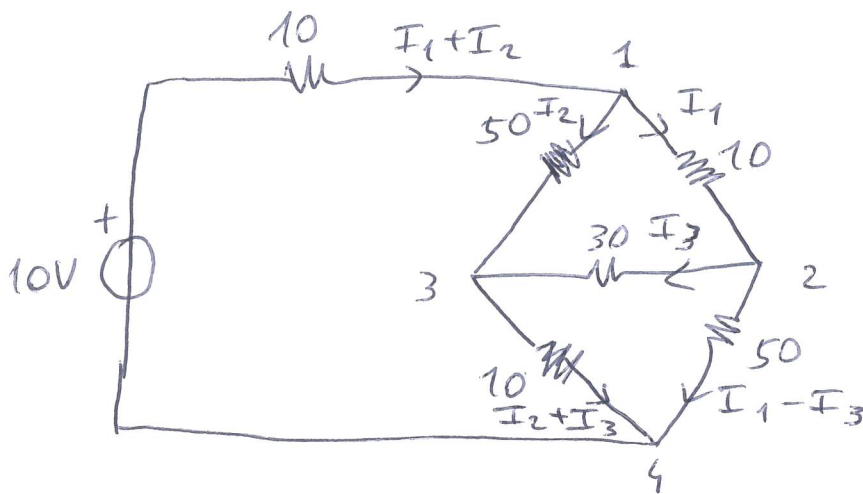
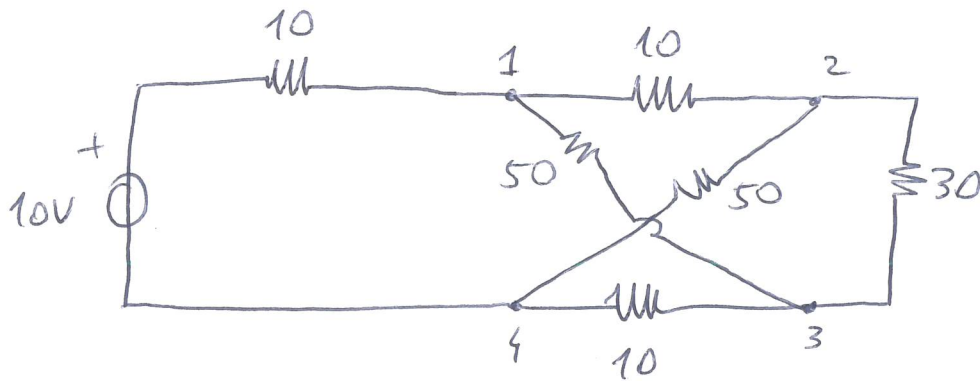


$$V_R = R_R i_R + V_{SR}$$

$$\left\{ \begin{array}{l} i_1 + i_2 + i_3 = 0 \\ i_3 - i_4 = 0 \\ V_1 - V_2 = 0 \\ V_2 - V_3 - V_4 = 0 \\ V_1 = R_1 i_1 + V_{S1} \\ V_2 = R_2 i_2 + V_{S2} \\ V_3 = R_3 i_3 \\ V_4 = R_4 i_4 + V_{S4} \end{array} \right.$$

LEGGI DI KIRCHHOFF

5)



$$1231) 10I_1 + 30I_3 - 50I_2 = 0$$

$$2342) 30I_3 - 50(I_1 - I_3) + 10(I_2 + I_3) = 0$$

$$1241) 10I_1 + 50(I_1 - I_3) + 10(I_1 + I_2) = 10$$

$$\begin{bmatrix} 1 & -5 & 3 \\ 5 & -1 & -9 \\ 7 & 1 & -5 \end{bmatrix} \begin{bmatrix} I_1 \\ I_2 \\ I_3 \end{bmatrix} = \begin{bmatrix} 0 \\ 0 \\ 10 \end{bmatrix}$$

$$I_1 = \frac{1}{5} A ; I_2 = \frac{1}{10} A ; I_3 = \frac{1}{10} A$$