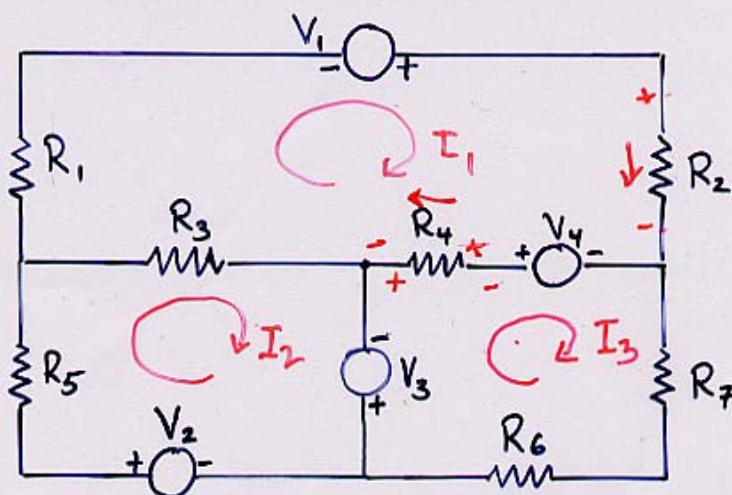


Mesh equations



$$\text{Mesh 1: } V_1 - I_1 R_2 + V_4 - R_4 (I_1 - I_3) - R_3 (I_1 - I_2) - I_1 R_1 = 0$$

$$\text{Mesh 2: } V_2 - I_2 R_5 - R_3 (I_2 - I_1) + V_3 = 0$$

$$\text{Mesh 3: } -V_3 - R_4 (I_3 - I_1) - V_4 - R_7 I_3 - R_6 I_3 = 0$$

In matrix form:

$$\begin{pmatrix} R_1 + R_2 + R_3 + R_4 & -R_3 & -R_4 \\ -R_3 & R_3 + R_5 & 0 \\ -R_4 & 0 & R_4 + R_6 + R_7 \end{pmatrix} \cdot \begin{pmatrix} I_1 \\ I_2 \\ I_3 \end{pmatrix} = \begin{pmatrix} V_1 + V_4 \\ V_2 + V_3 \\ -V_3 - V_4 \end{pmatrix}$$

↑
→
I