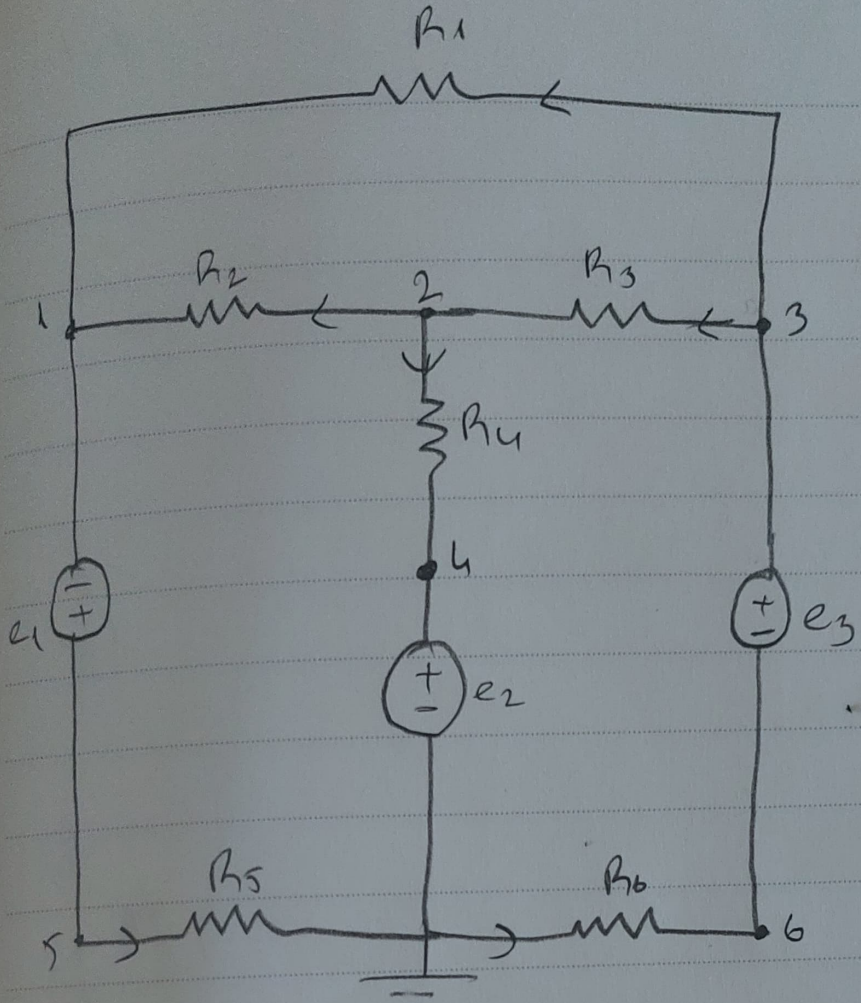
../../....



Node 1

$$i_1 + i_2 = i_5 \longrightarrow \frac{V_3 - V_1}{R_1} + \frac{V_2 - V_1}{R_2} - \frac{V_5}{R_5} = 0$$

Node 2

$$i_2 + i_4 = i_3 \longrightarrow \frac{V_2 - V_1}{R_2} + \frac{V_2 - e_2}{R_4} - \frac{V_3 + V_2}{R_3} = 0$$

Node 3

$$i_6 = i_3 + i_1 \longrightarrow -\frac{V_6}{R_6} + \frac{V_3 - V_2}{R_3} + \frac{V_3 - V_1}{R_1} = 0$$

Node 4

$$i_4 + i_5 = i_6 \longrightarrow \frac{V_2 - e_2}{R_4} + \frac{V_5}{R_5} - \frac{V_6}{R_6} = 0$$

$$\begin{bmatrix} \left(-\frac{1}{R_1}-\frac{1}{R_2}\right) & \frac{1}{R_2} & \frac{1}{R_1} & 0 & -\frac{1}{R_5} & 0 \\ -\frac{1}{R_2} & \left(\frac{1}{R_2}+\frac{1}{R_4}+\frac{1}{R_3}\right) & -\frac{1}{R_3} & 0 & 0 & 0 \\ -\frac{1}{R_1} & -\frac{1}{R_3} & \left(\frac{1}{R_1}+\frac{1}{R_3}\right) & 0 & 0 & -\frac{1}{R_6} \\ 0 & \frac{1}{R_4} & 0 & 0 & \frac{1}{R_5} & -\frac{1}{R_6} \end{bmatrix} \begin{bmatrix} V_1 \\ V_2 \\ V_3 \\ V_4 \\ V_5 \\ V_6 \end{bmatrix}$$

$$= \begin{bmatrix} 0 \\ \frac{e_2}{R_4} \\ 0 \\ e_2/R_4 \end{bmatrix}$$