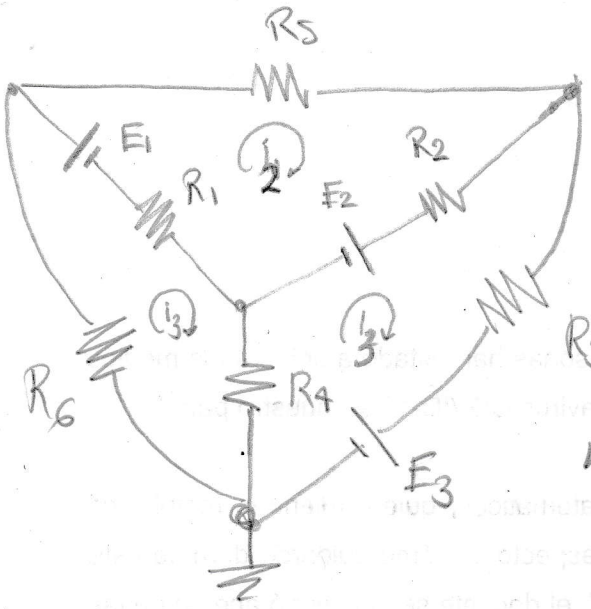


✓ Mallas ec. 2

$$i_2(R_1+R_2+R_5) - R_2 i_3 - R_1 i_1 - E_1 + E_2 = \emptyset$$

Malla ec 3

$$R_3 - i_2 \cdot R_2 + i_3(R_2+R_3+R_4) - i_1 \cdot R_4 - E_2 + E_3 = \emptyset$$

✓ Malla ec 1

$$-i_2 \cdot R_1 - i_3 R_4 + i_1(R_1+R_4+R_6) + E_1 = \emptyset$$

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Forma Matricial

$$15i_1 - 4i_2 - 4i_3 = -15$$
$$-4i_1 + 11i_2 - 3i_3 = -1 \Rightarrow$$
$$-4i_1 - 3i_2 + 17i_3 = 4$$

$$\begin{bmatrix} 15 & -4 & -4 \\ -4 & 11 & -3 \\ -4 & -3 & 17 \end{bmatrix} \begin{bmatrix} i_1 \\ i_2 \\ i_3 \end{bmatrix} = \begin{bmatrix} -15 \\ -1 \\ 4 \end{bmatrix}$$

$$R \cdot i = V$$

Donde $i = R^{-1} \cdot V$

$$R^{-1} = \begin{bmatrix} 89/1063 & 40/1063 & 28/1063 \\ 40/1063 & 239/2126 & 61/2126 \\ 28/1063 & 61/2126 & 149/2126 \end{bmatrix}$$

$$i_1 \approx -1.188 \text{ A}$$
$$i_2 \approx -0.562 \text{ A}$$
$$i_3 \approx -0.143 \text{ A}$$

$$\begin{bmatrix} i_1 \\ i_2 \\ i_3 \end{bmatrix} = \begin{bmatrix} 89/1063 & 40/1063 & 28/1063 \\ 40/1063 & 239/2126 & 61/2126 \\ 28/1063 & 61/2126 & 149/2129 \end{bmatrix} \begin{bmatrix} -15 \\ -1 \\ 4 \end{bmatrix} = \begin{bmatrix} -1263/1063 \\ -1195/2126 \\ -305/2126 \end{bmatrix}$$