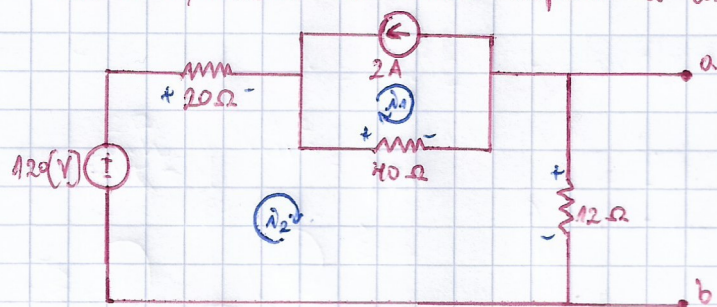
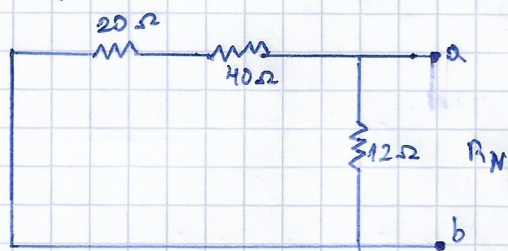


Sadiku

4.37 Halle el equivalente de Norton respecto a los terminales a-b en el circuito.

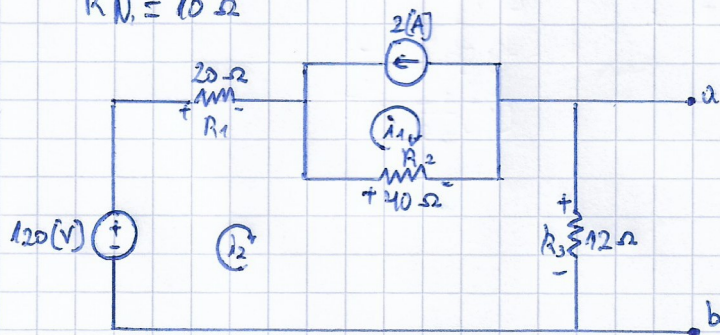


Apagando las fuentes



$$R_N = \frac{(40 + 20)(12)}{40 + 20 + 12}$$

$$R_N = 10 \Omega$$



$$i_1 = -2 \text{ [A]}$$

Malla 2

$$120 - 20 i_2 - 40(i_2 - i_1) - 12(i_2) = 0$$

$$20 i_2 + 40 i_2 + 12 i_2 = 40$$

$$72 i_2 = 40$$

$$i_2 = \frac{5}{9} \text{ [A]}$$

$$V_{Th} = V_{R_3}$$

$$V_{Th} = (12) \left( \frac{5}{9} \right) = \frac{20}{3} \text{ [V]}$$

$$V_{Th} = 6.667 \text{ [V]}$$

$$I_N = \frac{V_{Th}}{R_{Th}} = \frac{20/3}{10} = \frac{2}{3} \text{ [A]}$$

$$\begin{cases} R_N = 10 \Omega \\ I_N = 2/3 \text{ [A]} \end{cases}$$