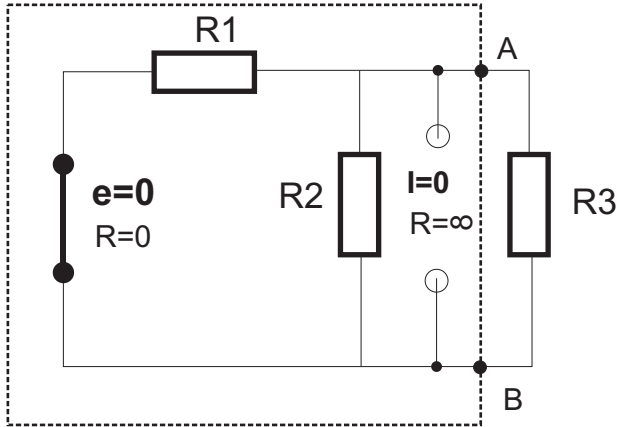


Résistance de Thévenin équivalent



Résistance de Thévenin équivalente:

$$R_{TH} = \frac{R1 \cdot R2}{R1 + R2}$$

Recherche de e_{TH} (On débranche la charge)

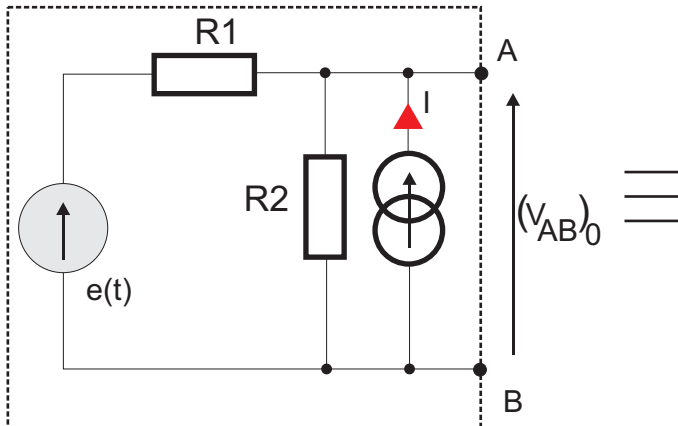


Fig1

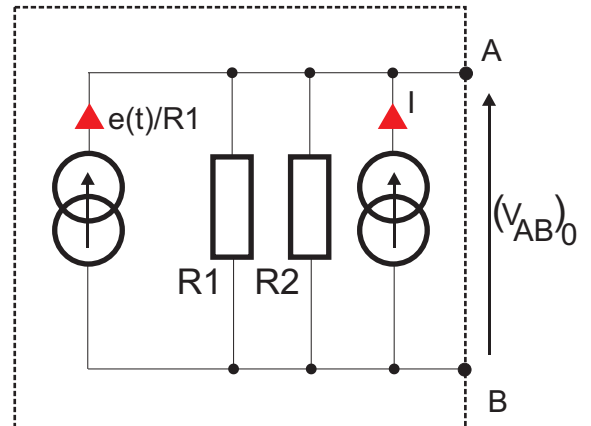


Fig2

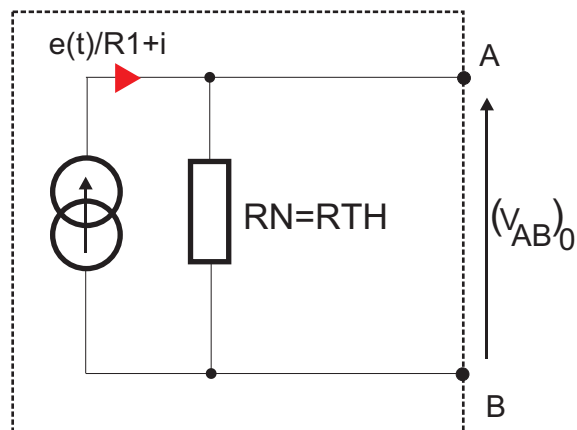


Fig3

$$\begin{cases} i_N = e(t)/R1 + i \\ R_N = R_{TH} = \frac{R1 \cdot R2}{R1 + R2} \end{cases}$$

Soit $(V_{AB})_0 = e_{TH} = R_N \times I_N = \left(\frac{e(t)}{R1 + i} \right) \times \frac{R1 \cdot R2}{R1 + R2}$

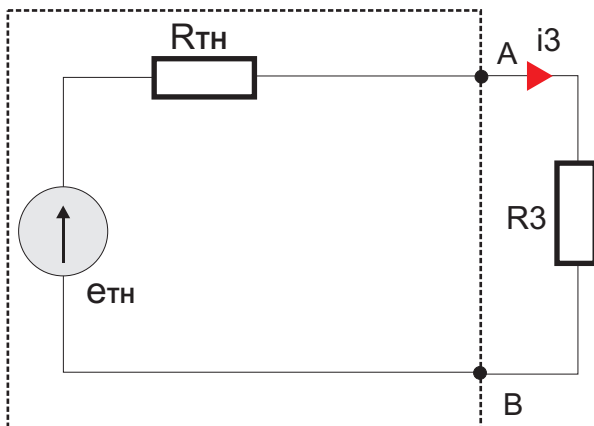


Fig4

D'où $(R3 + R_{TH}) \times i3 = e_{TH}$

Soit finalement:
$$i3 = \frac{e_{TH}}{(R3 + R_{TH})}$$

Ou:
$$i3 = \frac{\left(\frac{e(t)}{R1} + i \right) \times \frac{R1 \cdot R2}{R1 + R2}}{R3 + \left(\frac{R1 \cdot R2}{R1 + R2} \right)}$$