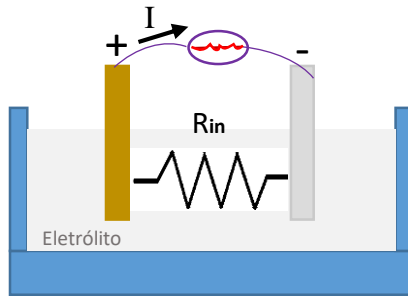


TRANSFORMAÇÃO DE FONTES

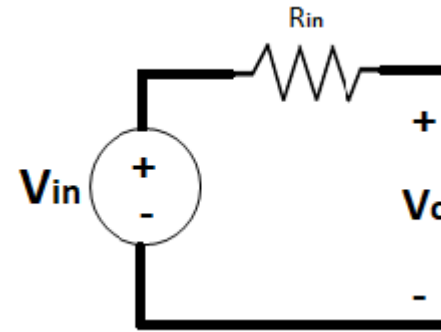
TRANSFORMAÇÃO DE FONTES -TF

❖ Fontes Reais

✓ Fontes de Tensão

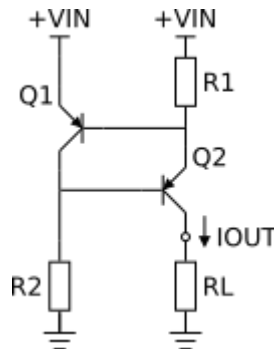


=> Modelo circuital =>

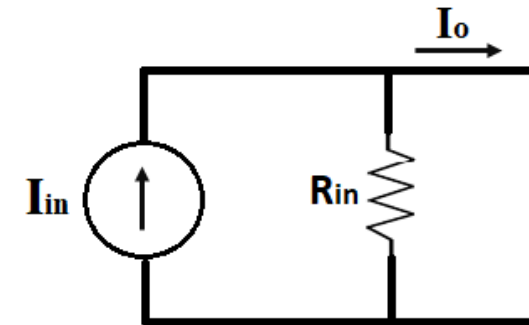


✓ Fontes de Corrente

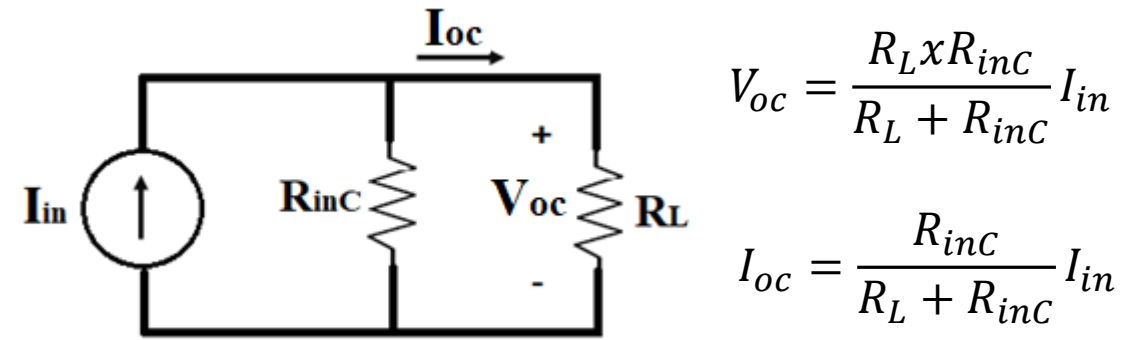
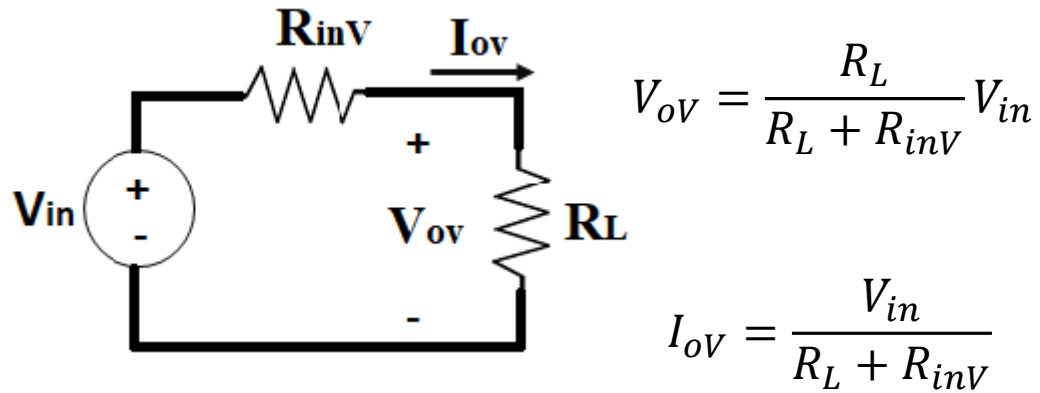
A implementação real de Fontes de Corrente se utiliza de componentes eletrônicos como Transistores (Q)



=> Modelo circuital =>



Em relação à carga, em termos de fornecimento de energia, deve ser independente da fonte à qual esteja conectada. Assim, se pode escrever para cada fonte:

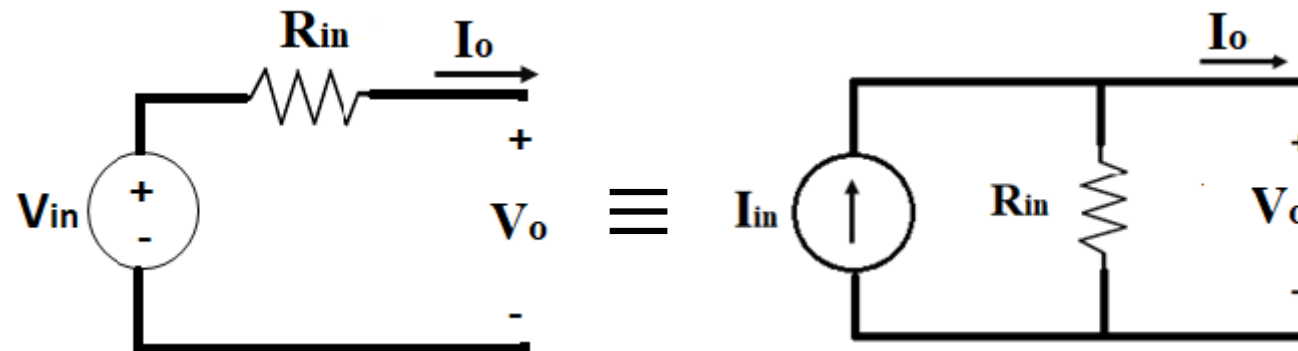


Então, para que R_L funcione de forma nominal e sem depender de que fonte esteja fornecendo a energia, se deve ter que a tensão ou a corrente na carga seja a mesma, assim:

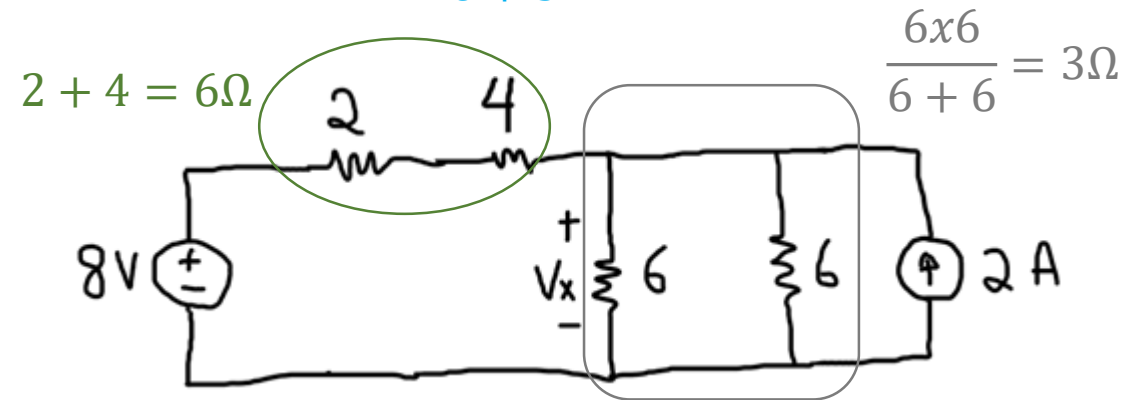
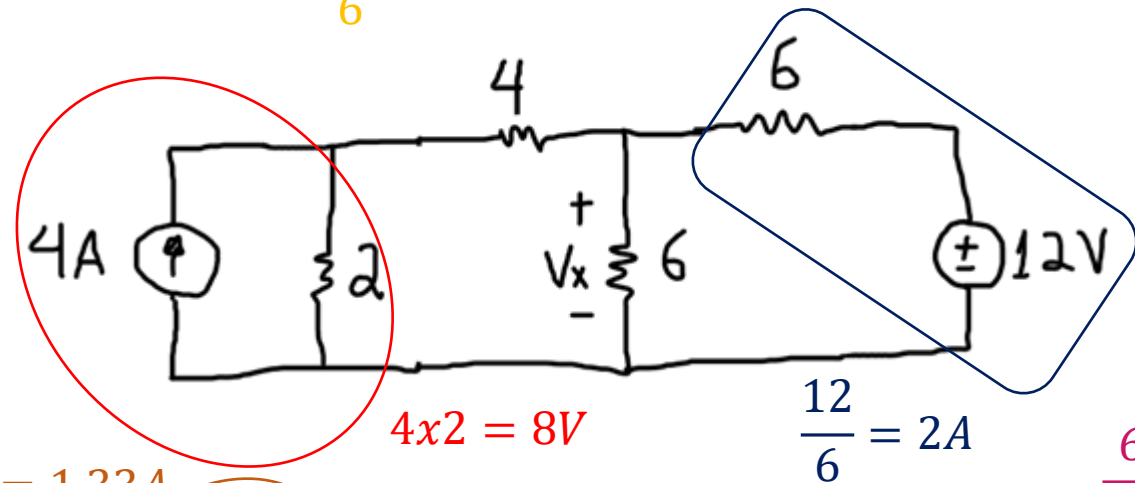
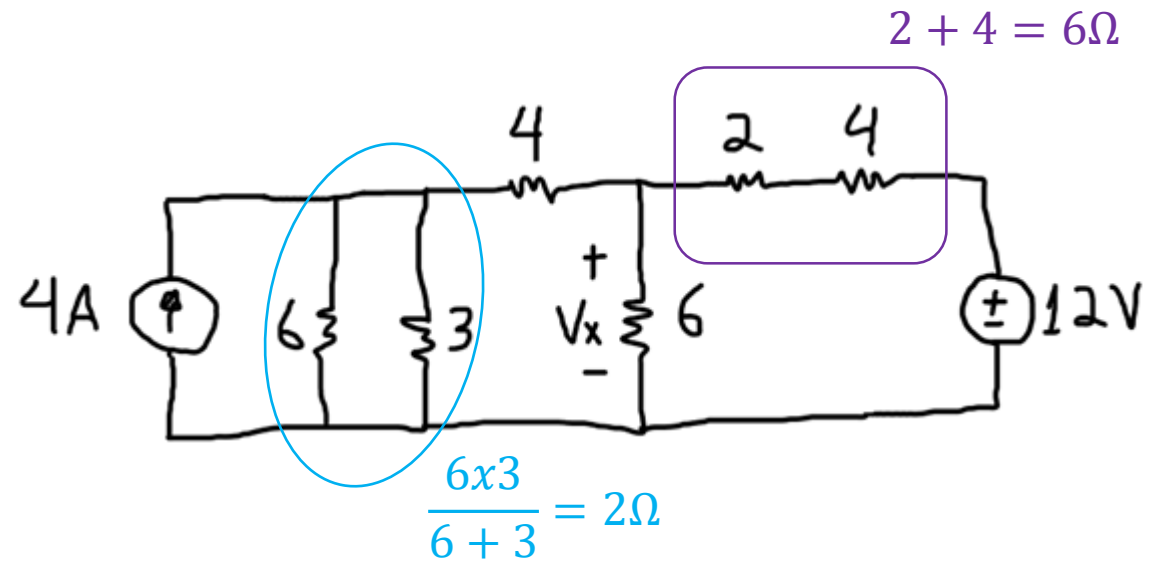
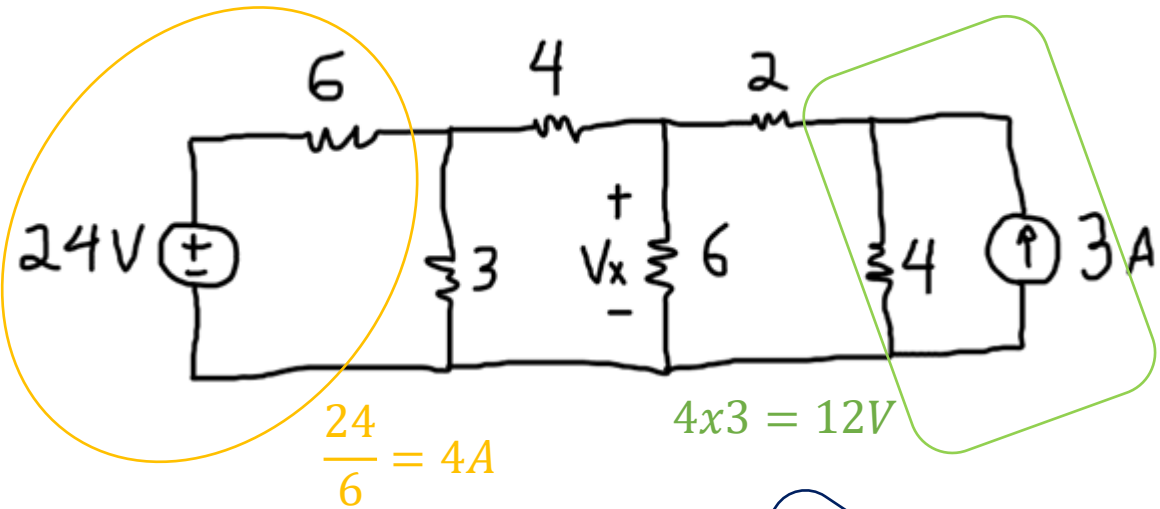
$$V_{ov} = V_{oc} \Rightarrow \frac{R_L}{R_L + R_{inV}} V_{in} = \frac{R_L \times R_{inC}}{R_L + R_{inC}} I_{in} \Rightarrow \cancel{R_L} \times V_{in} = \cancel{R_L} \times R_{inC} \times I_{in} \quad e \quad \cancel{R_L} + R_{inV} = \cancel{R_L} + R_{inC}$$

Portanto: $R_{inV} = R_{inC} = R_{in} \Rightarrow V_{in} = R_{in} \times I_{in}$

Em termos de circuito, tem-se:



- Exemplo 1: Determinar V_x por transformação de fontes



$\frac{8}{6} = 1,33A$

