

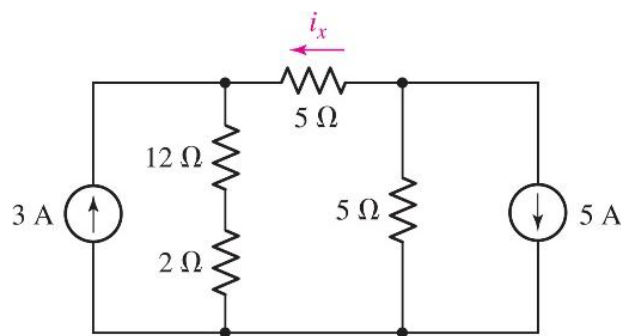


**Professor: Dr. Florindo Antonio De Carvalho Ayres Junior**

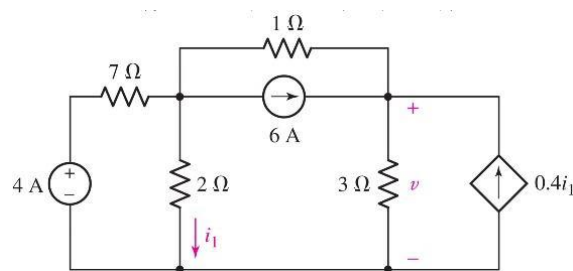
**FTE006 – Circuitos Elétricos 1E**

**Lista de Exercícios 3**

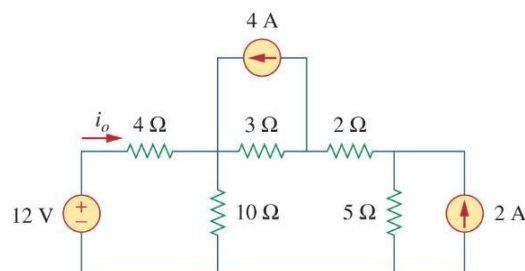
- 1) a) Use a superposição para determinar as contribuições individuais de cada uma das duas fontes da Figura abaixo para a corrente indicada  $i_x$ .  
b) Ajuste o valor da fonte de corrente à direita, altere o circuito de modo a que as duas fontes contribuam igualmente para a  $i_x$ .



- 2) Utilize a superposição para determinar a contribuição individual de cada fonte independente para  $v$ . Na sequência, calcule a potência absorvida pelo resistor de  $2\ \Omega$ .

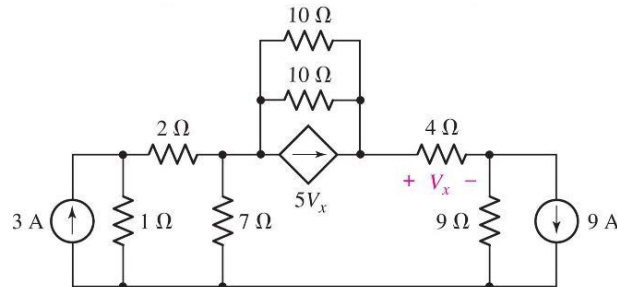


- 3) Utilize o teorema da superposição para encontrar a corrente  $i_o$ .

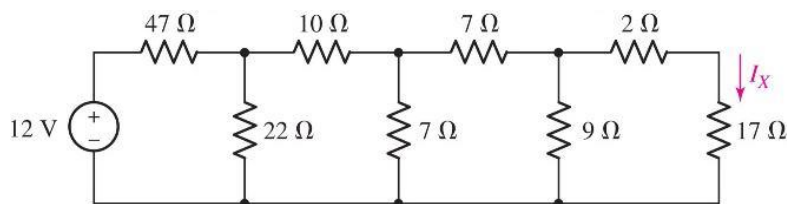




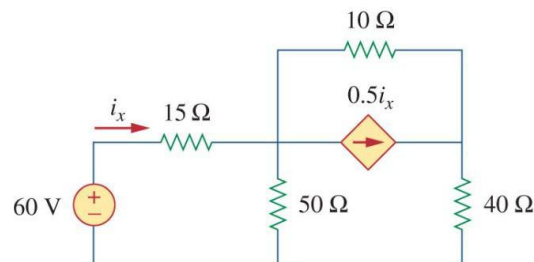
- 4) Utilize a transformação de fontes para calcular a tensão  $V_x$ .



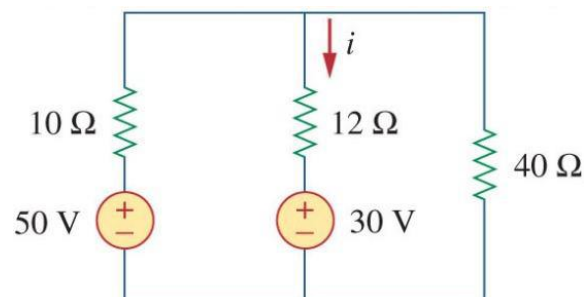
- 5) Utilizando repetidas transformações de fonte para calcular a potência no resistor de  $17 \Omega$ .



- 6) Use a transformação de fonte para encontrar o valor de  $i_x$  no circuito da Figura abaixo.

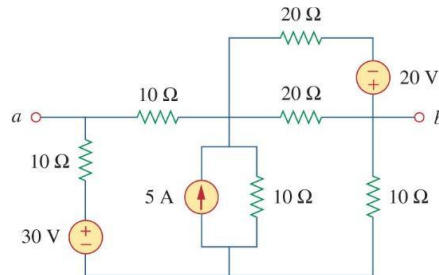


- 7) Aplique o teorema de Thevenin para encontrar a corrente  $i$ .

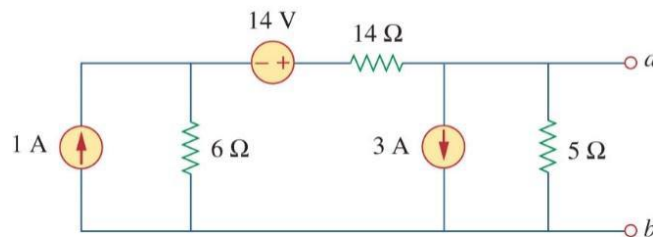




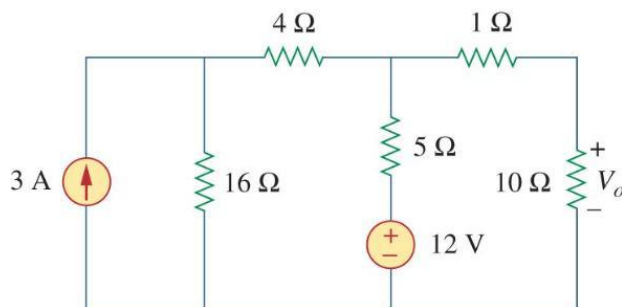
8) Determine o equivalente de Thévenin entre os terminais a e b.



9) Determine os equivalentes de Thévenin e Norton entre os terminais a e b.

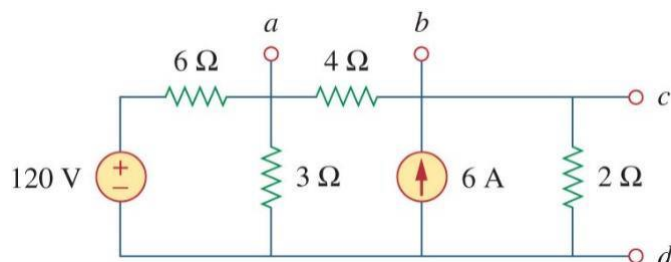


10) Aplique o teorema de Norton para identificar  $V_o$  no circuito da Figura abaixo.



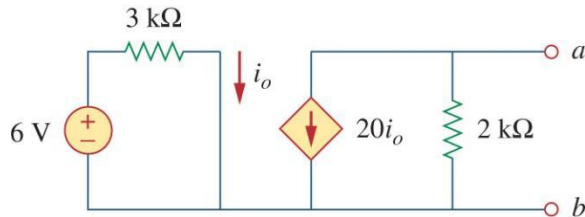
11) Determine os equivalentes de Thévenin e Norton entre os terminais a e b.

**CKT1**

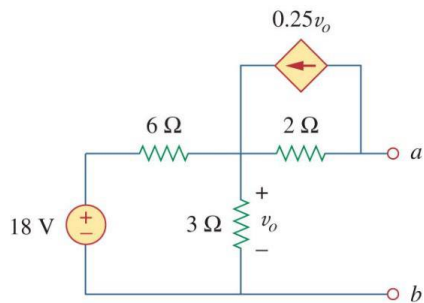




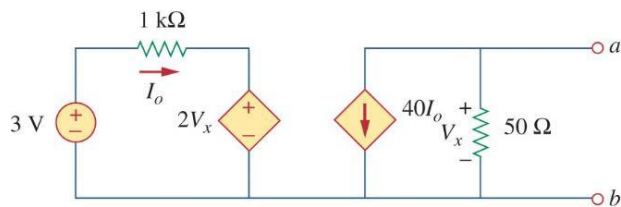
## CKT2



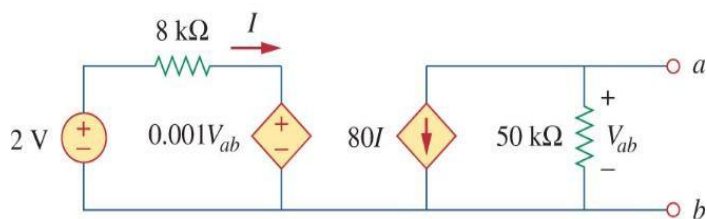
## CKT3



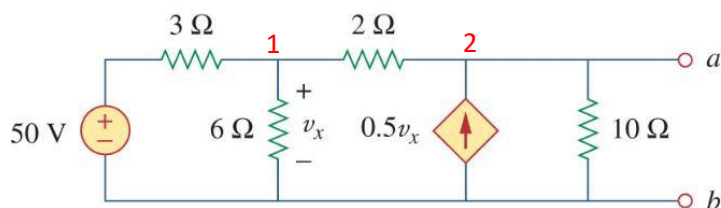
## CKT4



## CKT5

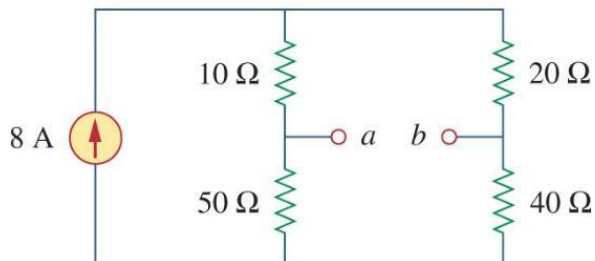


## CKT6

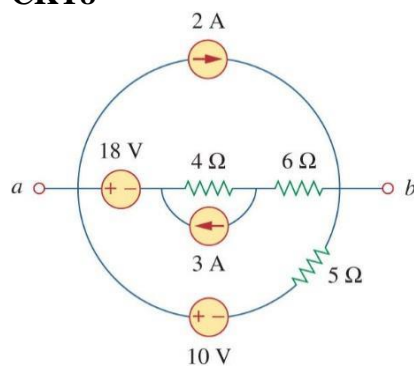




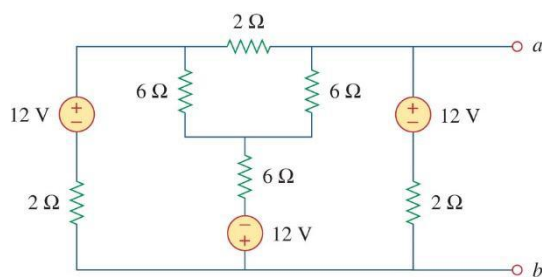
### CKT7



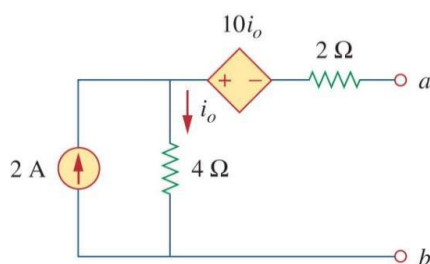
### CKT8



### CKT9

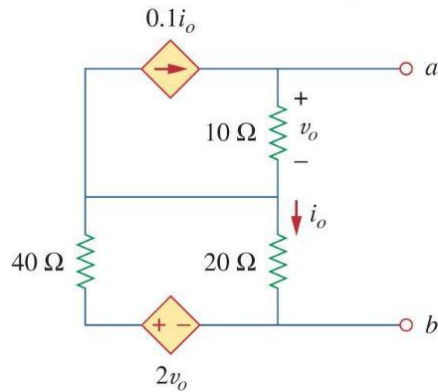


### CKT10

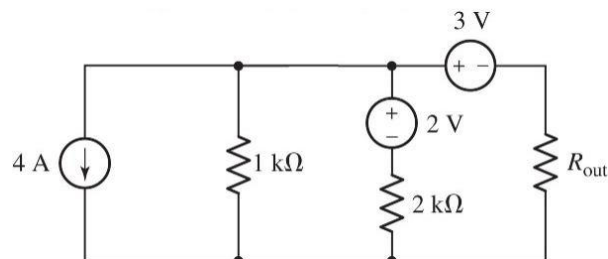




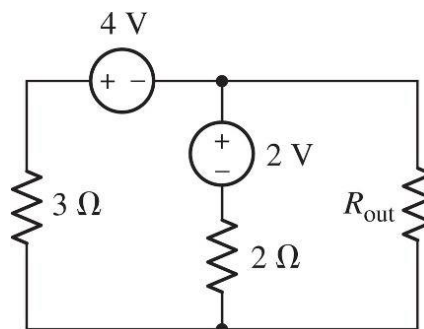
## CKT11



- 12) Determine o equivalente de Norton e em seguida calcule o valor de  $R_{out}$  tal que a potência máxima seja entregue a ele.



- 13) Determine o equivalente de Thévenin e em seguida calcule o valor de  $R_{out}$  tal que a potência máxima seja entregue a ele.



- 14) Determine o valor da resistência que absorveria a máxima potência do circuito quando conectada entre os terminais a e b.

