

# Métodos de Resolução dos Circuitos Elétricos

## EXERCÍCIOS

4.4 — Utilizando a análise de malhas, determinar as tensões e correntes indicadas, bem como a diferença de potencial entre os pontos  $A$  e  $D$  e entre  $A$  e  $E$  (Fig. 4.29).

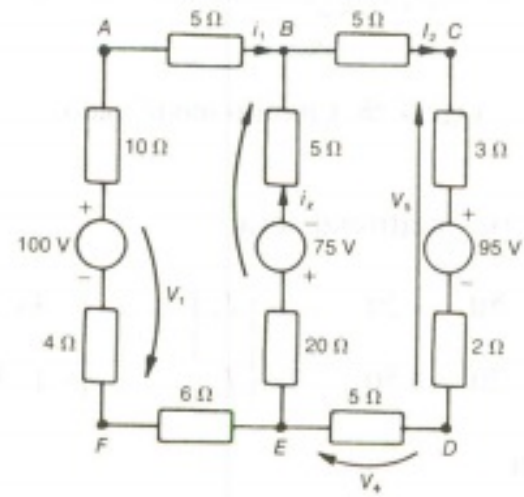


Fig. 4.29

4.5 — Utilizando a análise de malhas, determine as tensões e correntes indicadas nos circuitos representados a seguir:

a)

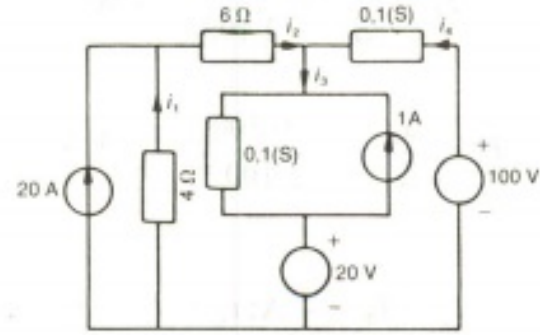


Fig. 4.30

b)

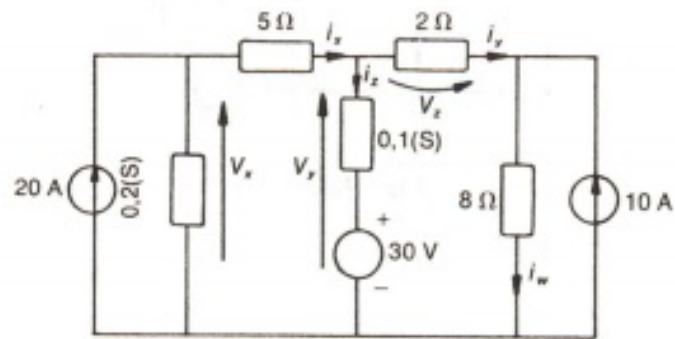


Fig. 4.31

c)

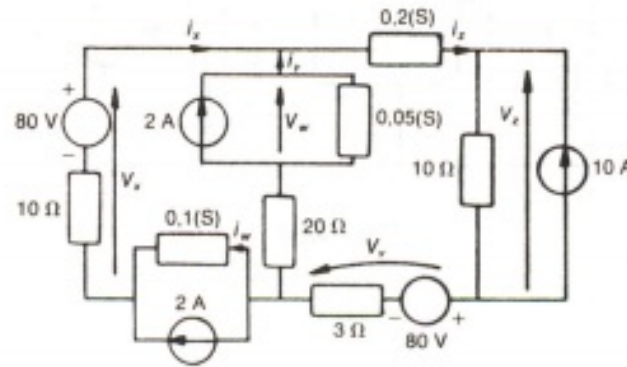


Fig. 4.32

d)

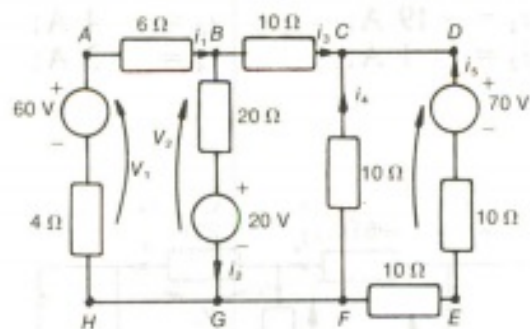


Fig. 4.33

e)

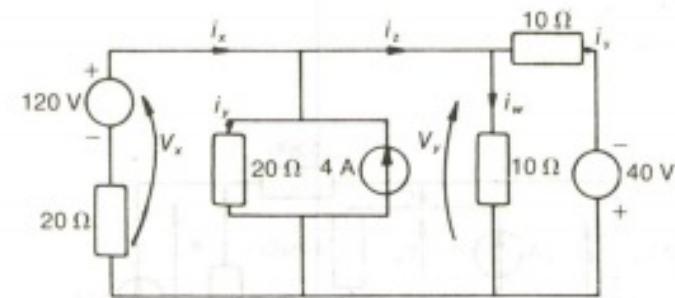


Fig. 4.34

4.6 — No circuito da Fig. 4.35, determinar a corrente no fio ideal  $AB$  e a potência dissipada por efeito joule em todo o circuito.

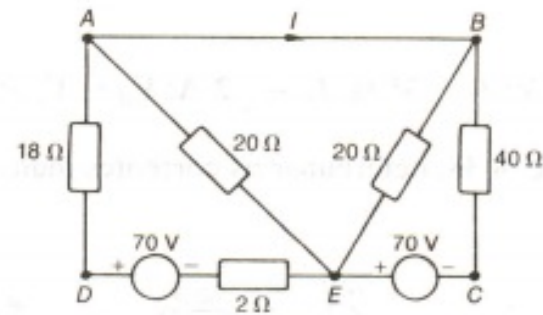


Fig. 4.35

4.7 — No circuito da Fig. 4.36, determinar o valor de  $E$  e  $i_1$ , sabendo que  $i_2 = 100$  mA.

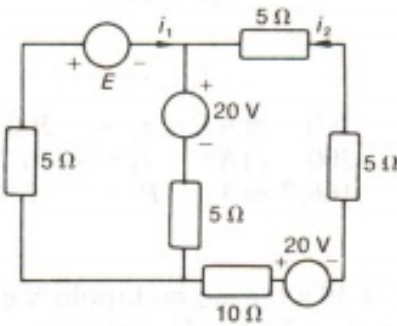


Fig. 4.36

4.8 — Na rede da Fig. 4.37, as correntes  $i_1$  e  $i_3$  valem, respectivamente, 2 A e 3 A.

Determinar:

- a tensão  $E$ ;
- a resistência  $R$  e a corrente  $i_2$ ;
- a diferença de potencial entre os pontos  $B$  e  $E$ .

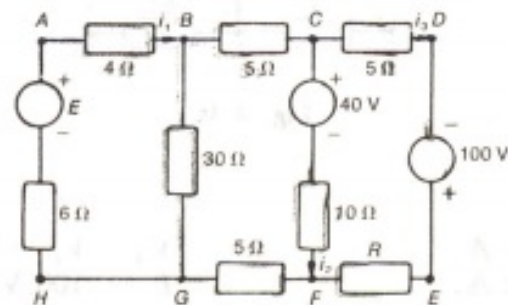


Fig. 4.37

4.9 — Na rede da Fig. 4.38, determinar as correntes indicadas e a potência total nela dissipada.

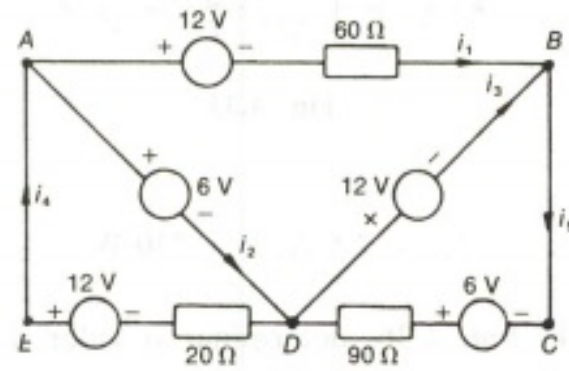


Fig. 4.38