

HOMEWORK-1

P 4.9-3 Determine the values of the node voltages v_1 , v_2 , and v_3 in the circuit shown in Figure P 4.9-3.

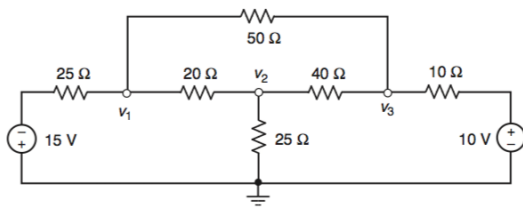


Figure P 4.9-3

P 4.7-7 The currents i_1 , i_2 , and i_3 are the mesh currents of the circuit shown in Figure P 4.7-7. Determine the values of i_1 , i_2 , and i_3 .

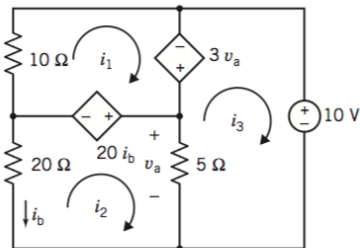


Figure P 4.7-7

P 4.6-8 Determine values of the mesh currents i_1 , i_2 , and i_3 in the circuit shown in Figure P 4.6-8.

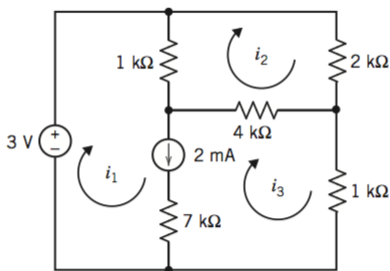


Figure P 4.6-8

P 4.3-14 The voltage source in the circuit shown in Figure P 4.3-14 supplies 83.802 W. The current source supplies 17.572 W. Determine the values of the node voltages v_1 and v_2 .

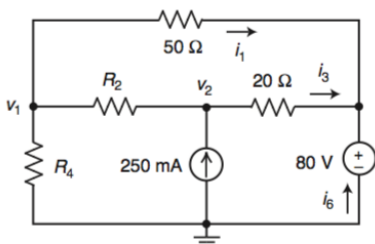


Figure P 4.3-14

P 4.5-4 Determine the mesh currents i_a and i_b in the circuit shown in Figure P 4.5-4.

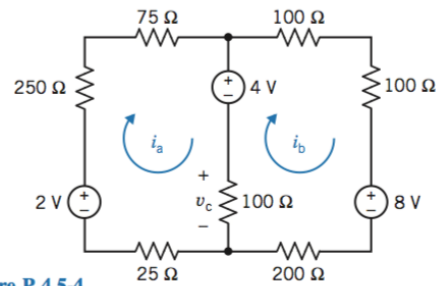


Figure P 4.5-4

P 4.4-7 The encircled numbers in the circuit shown in Figure P 4.4-7 are node numbers. The corresponding node voltages are:

$$v_1 = 9.74 \text{ V and } v_2 = 6.09 \text{ V}$$

Determine the values of the gains of the dependent sources, r and g .

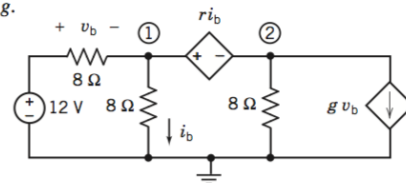


Figure P 4.4-7

P 4.7-11 Determine the values of the mesh currents of the circuit shown in Figure P 4.7-11.

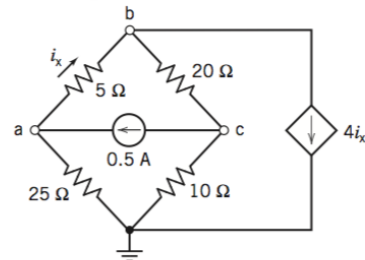


Figure P 4.7-11

***P 4.4-13** Determine values of the node voltages v_1 , v_2 , v_3 , v_4 , and v_5 in the circuit shown in Figure P 4.4-13.

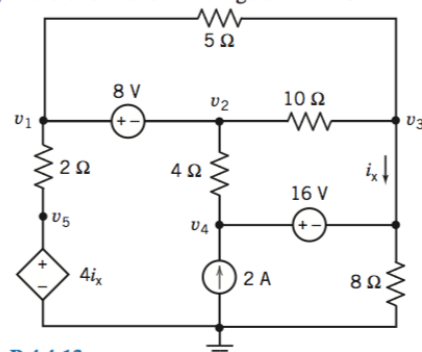


Figure P 4.4-13