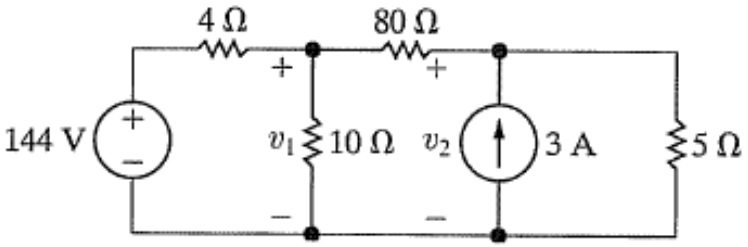
Elektroniikan perusteet 1. Demo 2. 29 ja 30. 01. 2009

Tehtävä 1.

4.12 PSPICE Use the node-voltage method to find v_1 and v_2 in the circuit in Fig. P4.12.

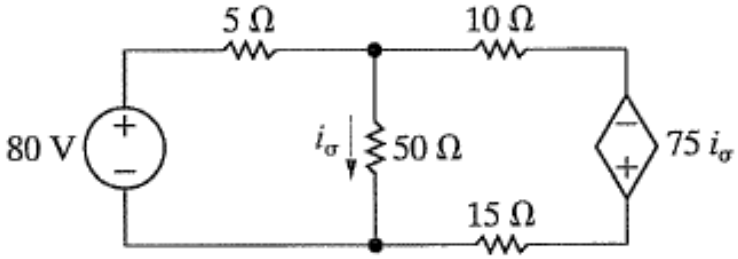
Figure P4.12



Tehtävä 2.

4.19 PSPICE Use the node-voltage method to calculate the power delivered by the dependent voltage source in the circuit in Fig. P4.19.

Figure P4.19

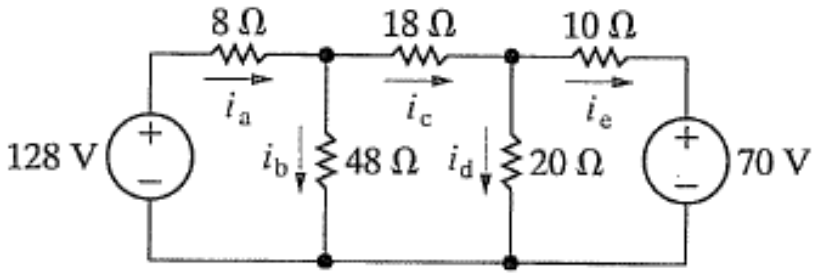


Tehtävä 3.

a) Use the mesh-current method to find the branch currents i_a – i_e in the in Fig. P4.10.

b) Find the total power developed in the circuit.

Figure P4.10

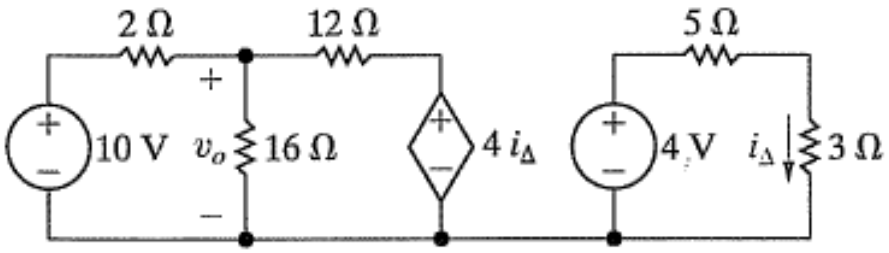


Tehtävä 4.

4.40 PSPICE a) Use the mesh-current method to find v_o in the circuit in Fig. P4.40.

b) Find the power delivered by the dependent source.

Figure P4.40



Tehtävä 5.

4.91 a) Use the principle of superposition to find the voltage v in the circuit of Fig. P4.91.

b) Find the power dissipated in the 20 Ω resistor.

Figure P4.91