Exercise 4, Question 1

4.11 a) Use the node-voltage method to find the branch currents $i_a - i_e$ in the circuit shown in Fig. P4.11.

PSPICE
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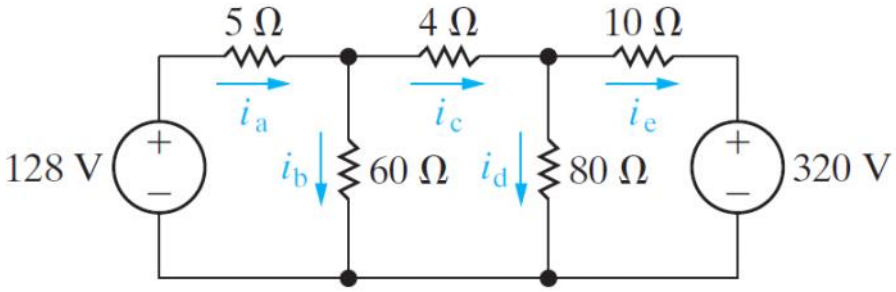
Figure P4.11

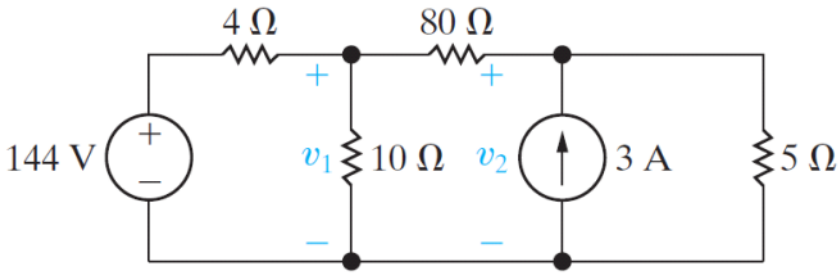


Exercise 4, Question 2

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

PSPICE
MULTISIM

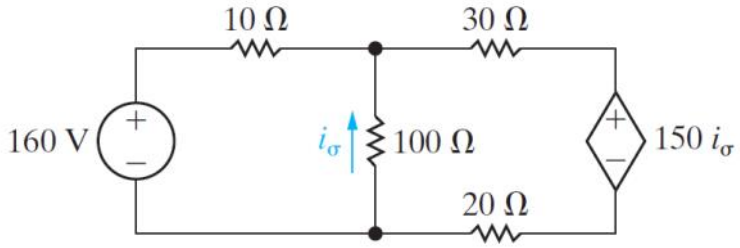
Figure P4.12



Exercise 4, Question 3

4.18 PSPICE MULTISIM Use the node-voltage method to calculate the power delivered by the dependent voltage source in the circuit in Fig. P4.18.

Figure P4.18



Exercise 4, Question 4

4.17 a) Use the node-voltage method to find v_o in the circuit in Fig. P4.17.

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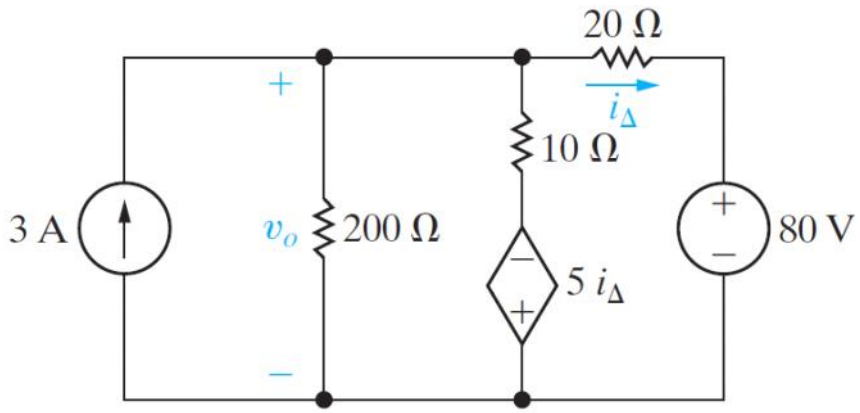
Figure P4.17



Exercise 4, Question 5

4.22 a) Use the node-voltage method to find v_o and the power delivered by the 2 A current source in the circuit in Fig. P4.22. Use node a as the reference node.

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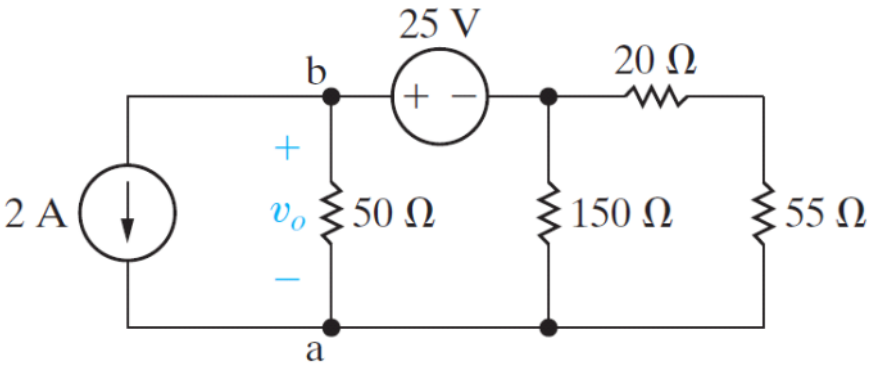
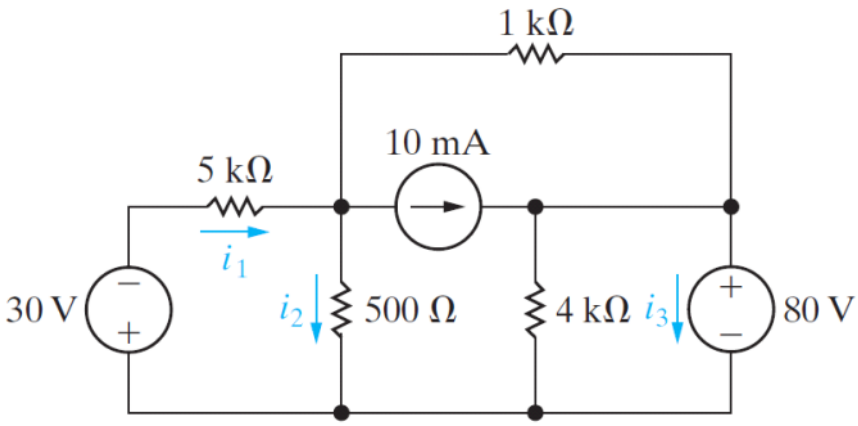


Exercise 4, Question 6

4.27 a) Use the node-voltage method to find the branch currents i_1, i_2, and i_3 in the circuit in Fig. P4.27.

PSPICE
MULTISIM

Figure P4.27

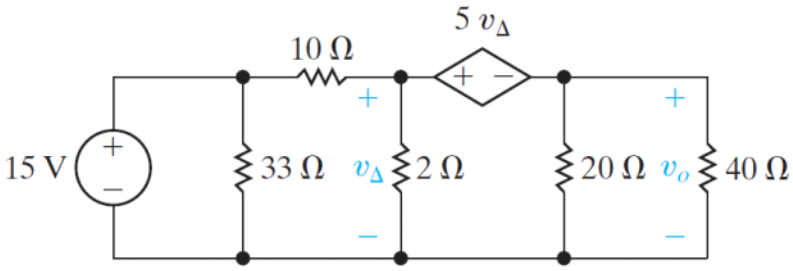


Exercise 4, Question 7

4.26 Use the node-voltage method to find v_o in the circuit in Fig. P4.26.

PSPICE
MULTISIM

Figure P4.26



Exercise 4, Question 8

a) Use Node-voltage method to formulate a set of equations to find vb and vd.
b) Arrange/rewrite the equations in a matrix format.