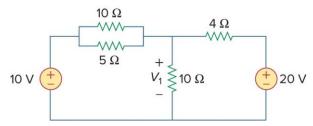
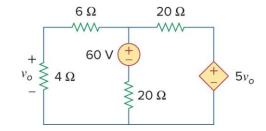
## **Electric Circuits**

Homework Set 6

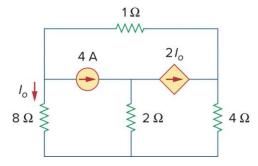
1. Solve for  $V_1$  in the following circuit using nodal analysis.



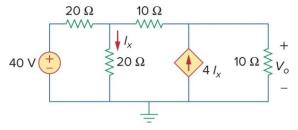
2. Using nodal analysis, find  $v_o$  in the circuit below.



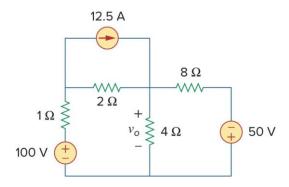
3. Find  $I_o$  in the following circuit using the node-voltage method.



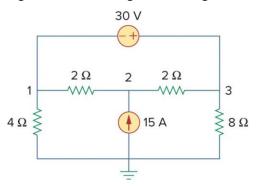
4. Find  $V_o$  in the following circuit using the node-voltage method.



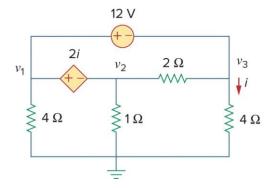
5. Using nodal analysis, find  $v_o$  in the circuit below.



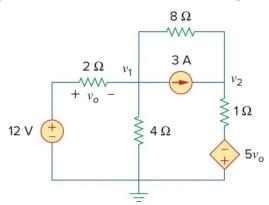
6. Determine the node voltages in the following circuit using nodal analysis.



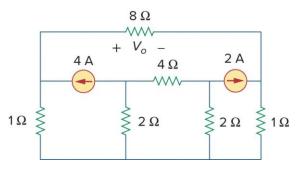
7. Using the node-voltage method, find  $v_1$ ,  $v_2$  and  $v_3$  in the circuit below.



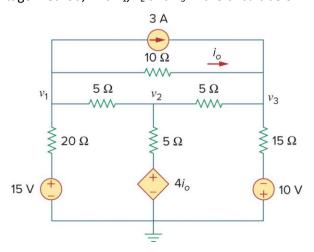
8. Using the node-voltage method, find  $v_1$  and  $v_2$  in the following circuit.



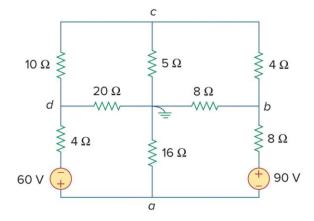
9. Find  $V_o$  in the following circuit using the node-voltage method.



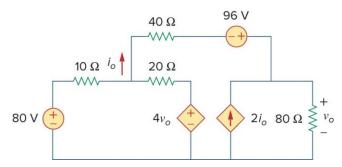
10. Using the node-voltage method, find  $v_1$ ,  $v_2$  and  $v_3$  in the circuit below.



11. Use nodal analysis to determine the voltages at nodes a, b, c, and d in the following circuit.



12. Use nodal analysis to find  $v_o$  and  $i_o$  in the circuit below.



13. Using the node-voltage method, find  $v_1$ ,  $v_2$  and  $v_3$  in the circuit below.

