P2.34. Use the node-voltage technique to find the value of $i_1$ in Figure P2.34. Select the location of the reference node to minimize the number of unknown node voltages.

![Figure P2.34](image)

P2.35. Find the equivalent resistance for the network shown in Figure P2.35. (Hint: First connect a 1-A current source across terminals $a$ and $b$. Then, solve the network by the node-voltage technique. The voltage across the current source is equal in value to the equivalent resistance.)

![Figure P2.35](image)

P2.36. Solve for the values of the node voltages shown in Figure P2.36. Then, find the value of $i_x$.

![Figure P2.36](image)

P2.37. Solve for the node voltages shown in Figure P2.37. Then, find the value of $i_x$.

![Figure P2.37](image)

P2.38. Solve for the node voltages shown in Figure P2.38.

![Figure P2.38](image)

P2.39. Find the equivalent resistance for the network shown in Figure P2.39. (Hint: First connect a 1-A current source across terminals $a$ and $b$. Then, solve the network by the node-voltage technique. The voltage across the current source is equal in value to the equivalent resistance.)

![Figure P2.39](image)