2–53 Use circuit reduction to find v_x in Figure P2–53.

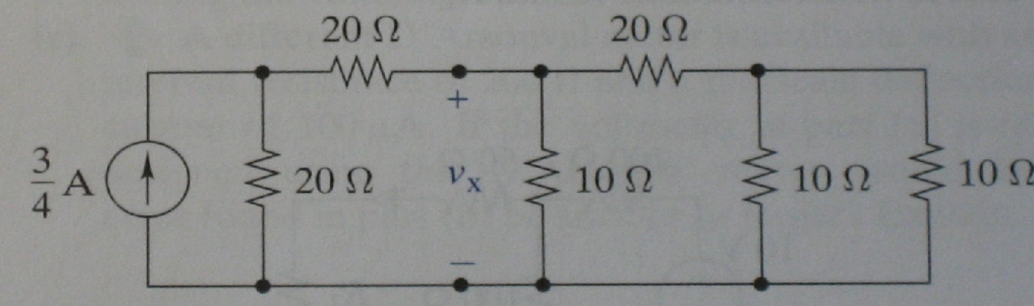

FIGURE P2–53

2–58 The current through R_L in Figure P2–58 is 40 mA. Use source transformations to find R_L.

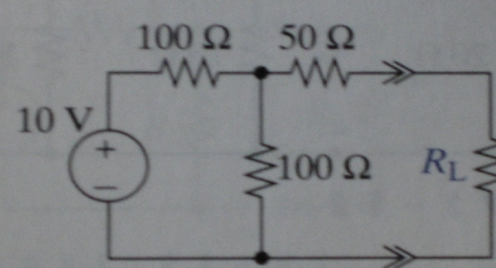

FIGURE P2–58

2–62 Center Tapped Voltage Divider **A**
Figure P2–62 shows a voltage divider with the center tap connected to ground. Derive equations relating v_A and v_B to v_S, R_1, and R_2.

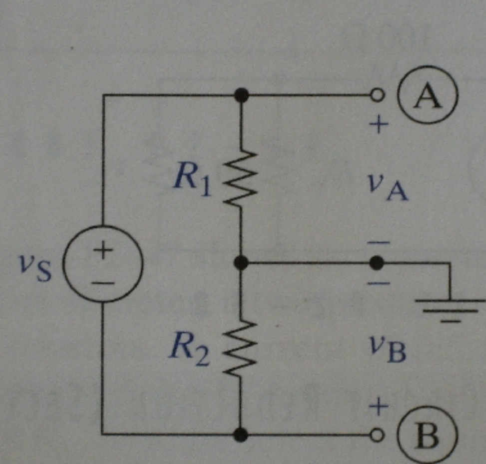

FIGURE P2–62

3–2 **(a)** Formulate node-voltage equations for the circuit in Figure P3–2.
(b) Use these equations to find v_x and i_x.

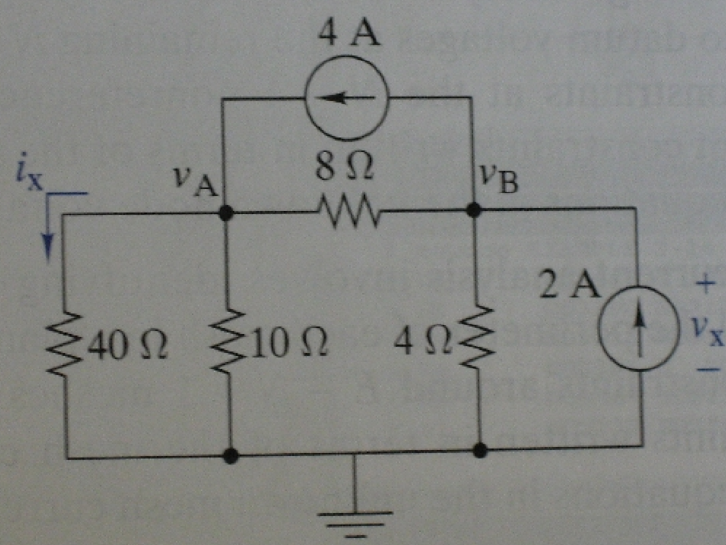

FIGURE P3–2

3–5 **(a)** Formulate node-voltage equations for the circuit in Figure P3–5.
(b) Solve for v_x and i_x when $R_1 = R_2 = R_3 = R_4 = 10\ \text{k}\Omega$, $v_S = 20$ V, and $i_S = 2$ mA.

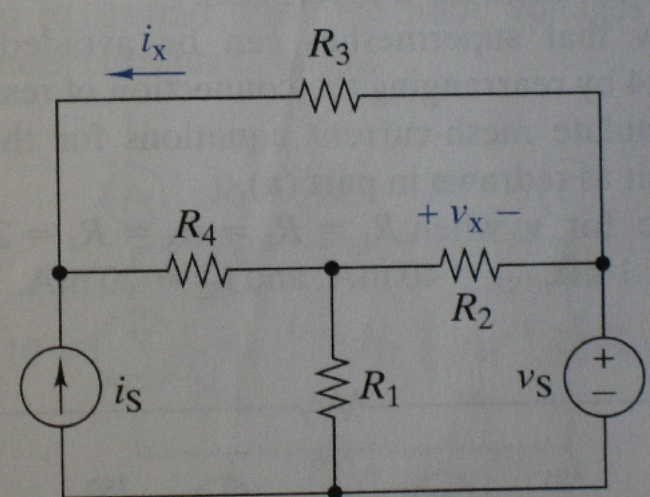

FIGURE P3–5

3–37 Find the Thévenin equivalent circuit seen by R_L in Figure P3–37. Find the voltage across the load when $R_L = 5\ \Omega$, $10\ \Omega$, and $50\ \Omega$.

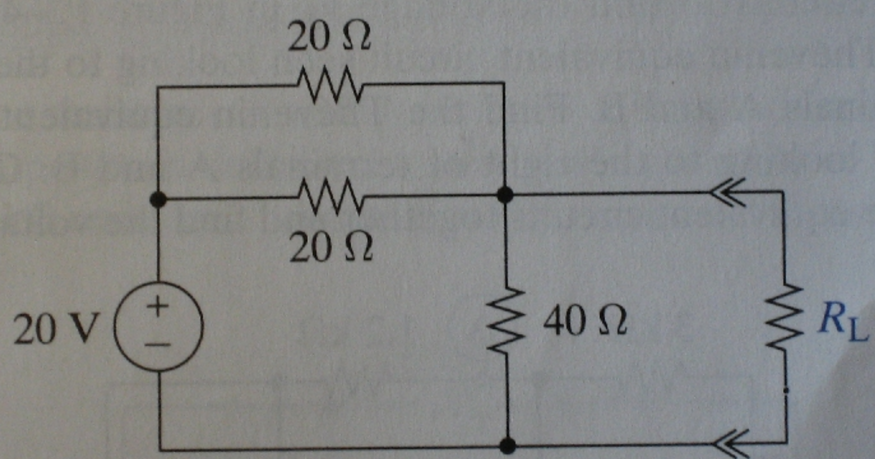

FIGURE P3–37

3–41 The purpose of this problem is to use Thévenin equivalent circuits to find the voltage v_X in Figure P3–41. Find the Thévenin equivalent circuit seen looking to the left of terminals A and B. Find the Thévenin equivalent circuit seen looking to the right of terminals A and B. Connect these equivalent circuits together and find the voltage v_X.

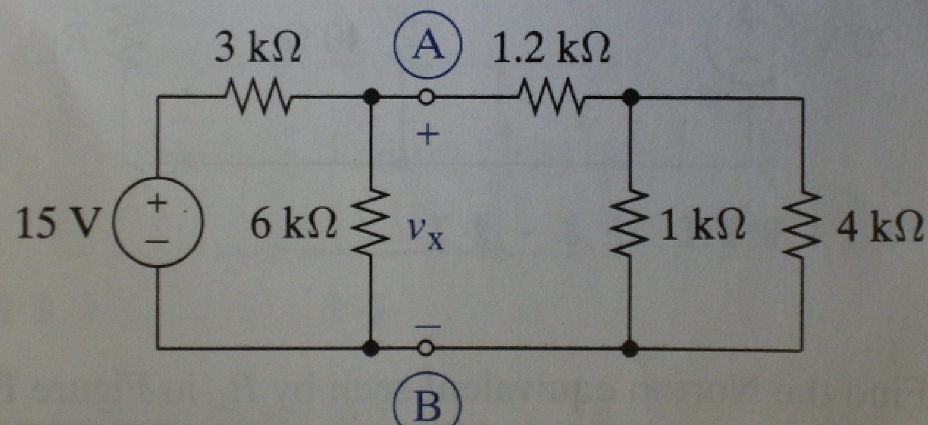

FIGURE P3–41