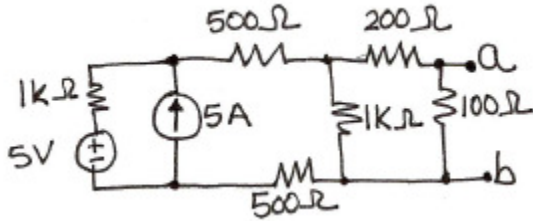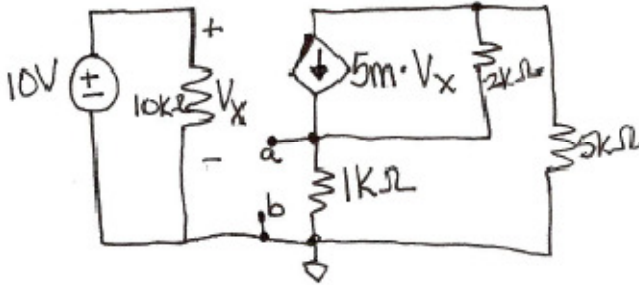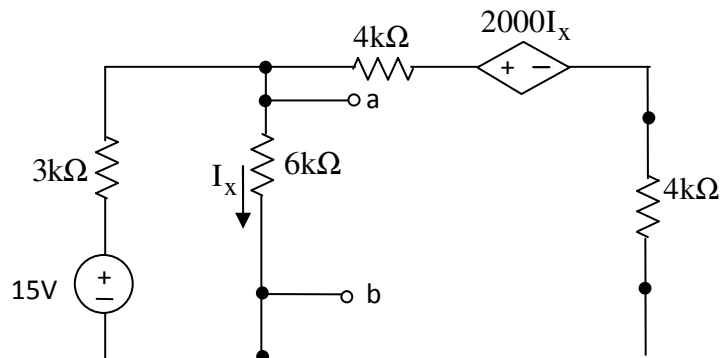1.   Find the Thevenin equivalent circuit between terminals a-b.
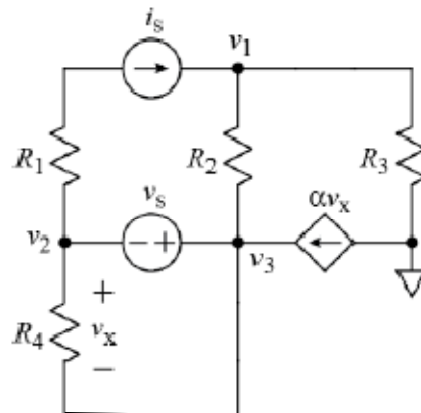

2.   Find the Thevenin equivalent circuit between terminals a-b.

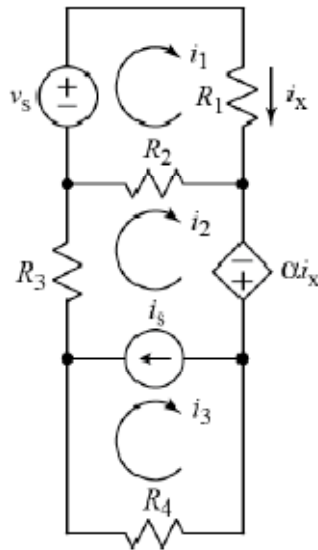3. Determine the Thevenin equivalent circuit between terminals a-b.

4.   For the circuit shown, write three independent equations for the node voltages v_1, v_2, and v_3.

   The quantity V_x must not appear in the equations.


5.   Solve the equations in Problem 4 to find v_1, v_2, and v_3

6.   From Problem 4, calculate the power in the dependent source. State whether it is consuming or producing power.

7.   For the circuit shown, write three independent equations for the three mesh currents, i_1, i_2, and i_3. The quantity i_x must not appear in the equations.

8.   Solve the equations in Problem 7 to find i$_1$, i$_2$, and i$_3$.

9.   Find the Thevenin equivalent circuit between terminals a and b. The quantity V_x must not appear in your solution. Note: $\alpha > 0$.
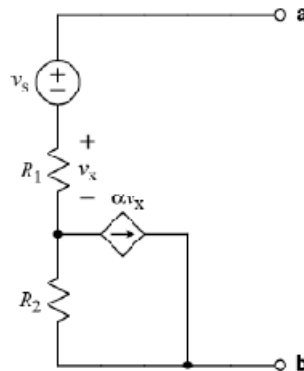
10.   Calculate the power in the 3.3V source. State whether it is consuming or producing power.