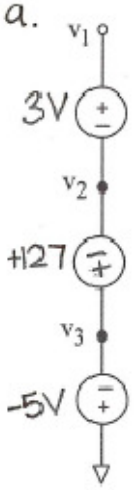
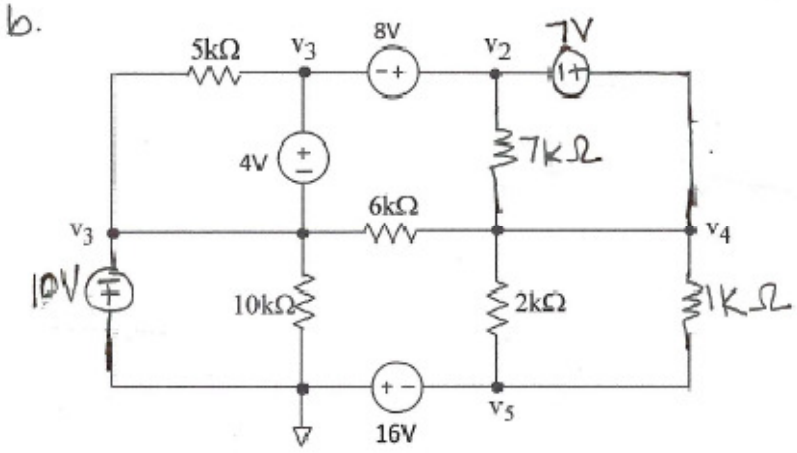
1. a.



Find the absolute voltages at all the labeled nodes in the circuit at the left. Hint: Start at the bottom(which is 0V) and work upwards.

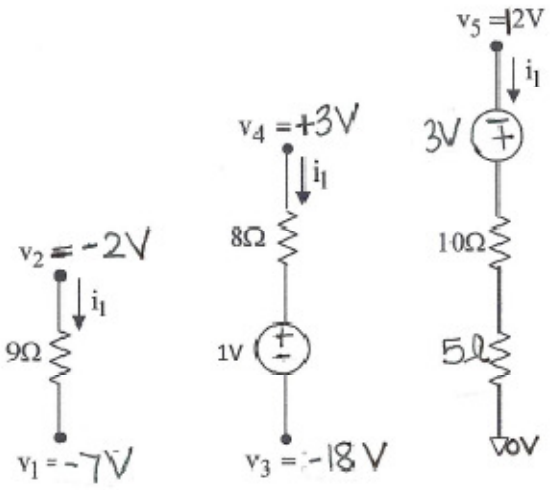
b.



Find the absolute voltages at all the labeled nodes in the above circuit. Hint: This may be done by inspection.

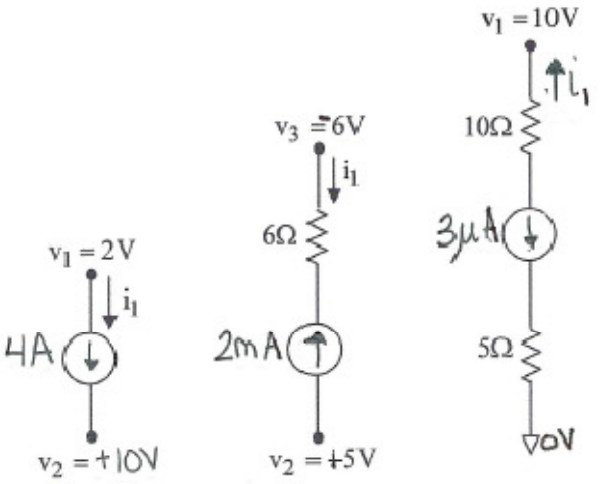
c. Using Ohm's law and the node voltages found in part b, find the currents for all the resistors in part b.

2. a.



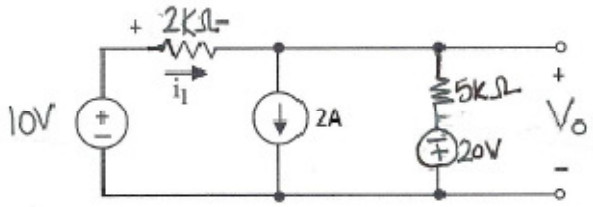
Find the value of current, i_1, for each of the above circuits.

b.



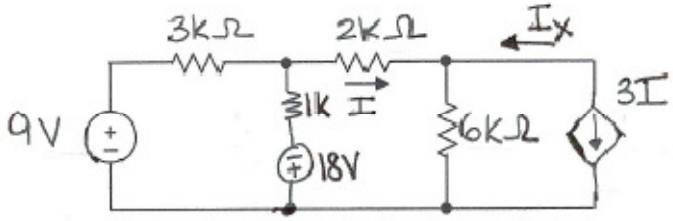
Find the value of current, i_1, for each of the above circuits.

3.



Use the node-voltage method to find i_1 and V_o.

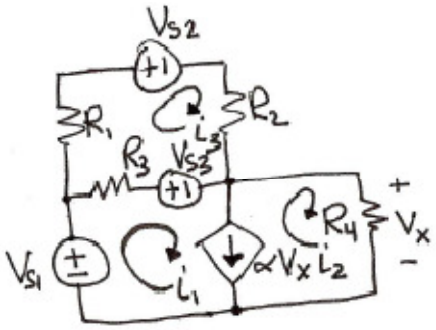
4.



a. Use the node-voltage method to determine I_x.

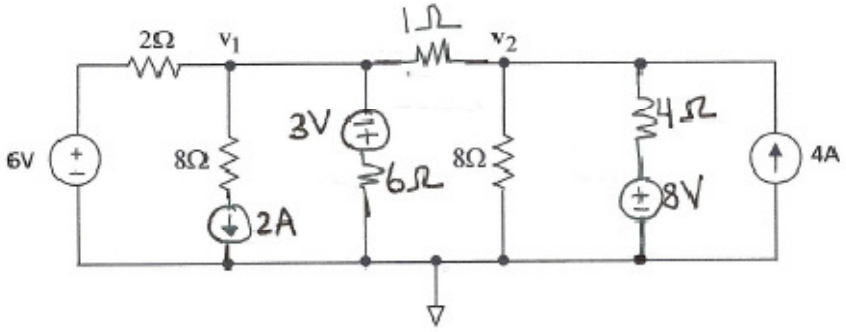
b. Determine the amount of power in the dependent source.

5.



Use the mesh-current method to find i_1 and i_2, and i_3.

6.

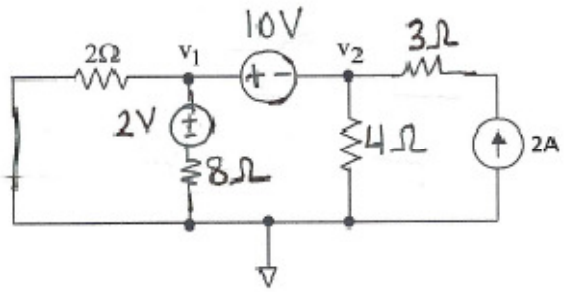


a. Use the node-voltage method to find v_1 and v_2.

b. Determine the amount of power supplied by the 6V voltage source.

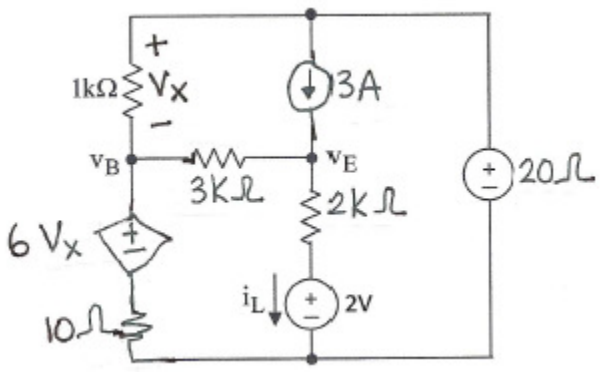
7. Use the mesh current method to solve Problem 6 to find v_1 and v_2.

8.



Use either the node-voltage method or current mesh method to find v_1 and v_2.

9.



Use the node-voltage method to find v_1 and v_2.

10. Solve Problem 9 using the mesh current method to find v_1 and v_2.