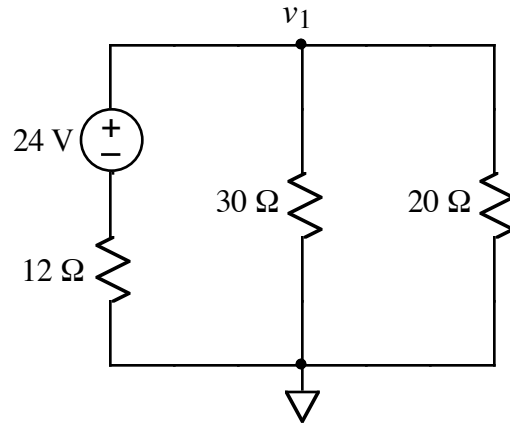
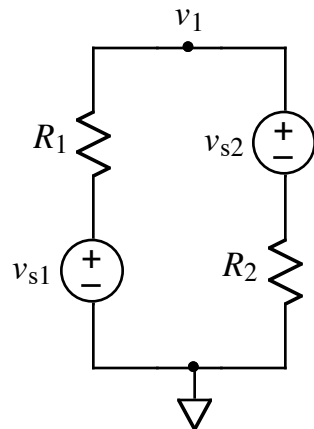


1.



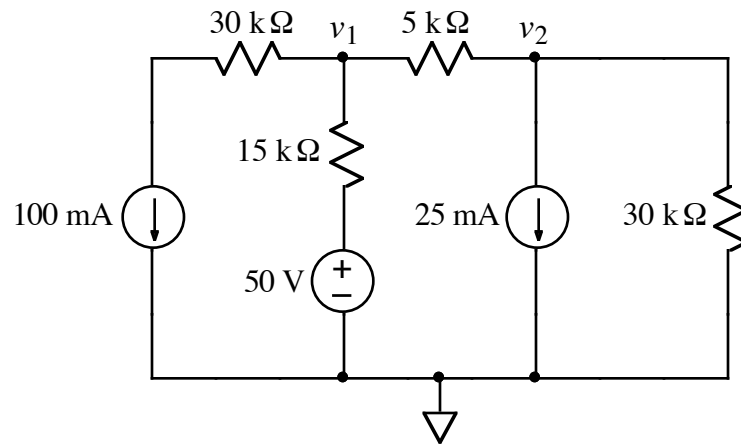
- a) Use the node-voltage method to find v_1 .
- b) Find the equivalent resistance for the 30Ω and 20Ω resistors in parallel. Then use the voltage divider formula to find v_1 . Verify that both (a) and (b) have the same answer.

2.



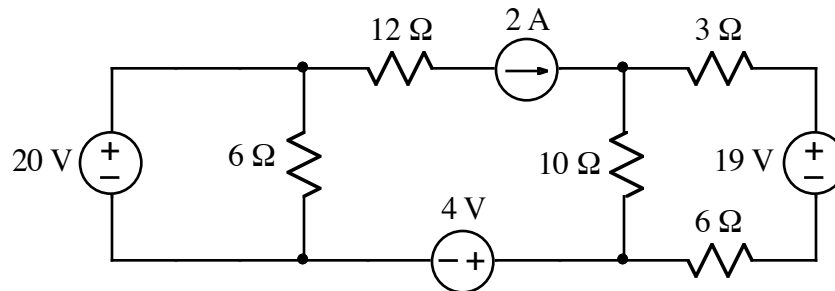
Use the node-voltage method to find a formula for v_1 . Write your answer as a sum of a voltage divider for v_{s1} and a voltage divider for v_{s2} .

3.



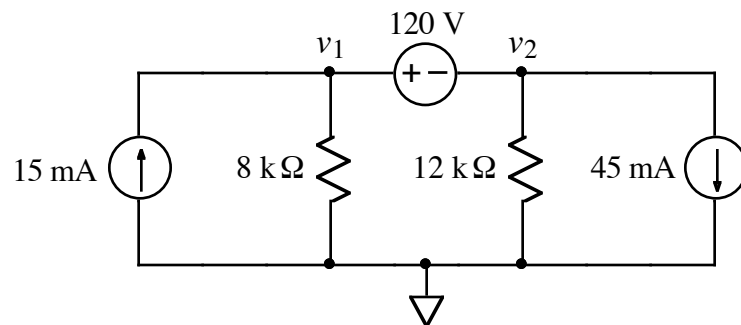
Use the node-voltage method to find v_1 and v_2 .

4.



Choose a reference node and use the node-voltage method to find the remaining node voltages.

5.



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