1. 


a) Use the node-voltage method to find $v_{1}$.
b) Find the equivalent resistance for the $10 \Omega$ and $15 \Omega$ 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 $v_{\mathrm{S} 1}$ and a voltage divider for $v_{\mathrm{s} 2}$.
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 the remaining node voltages.
5.


Use the node-voltage method to find $v_{1}$ and $v_{2}$.

