

EE111 Homework 1

Due date:

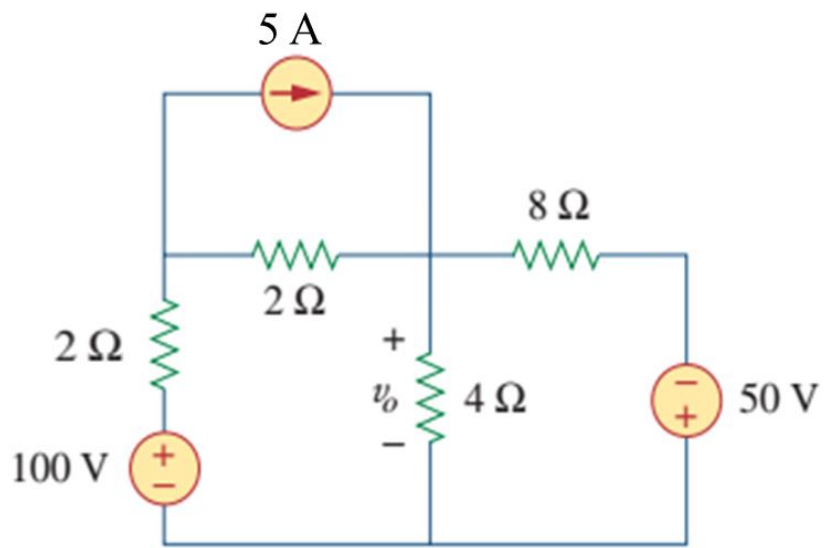
Mar.6th, 2018

Turn in your homework in class

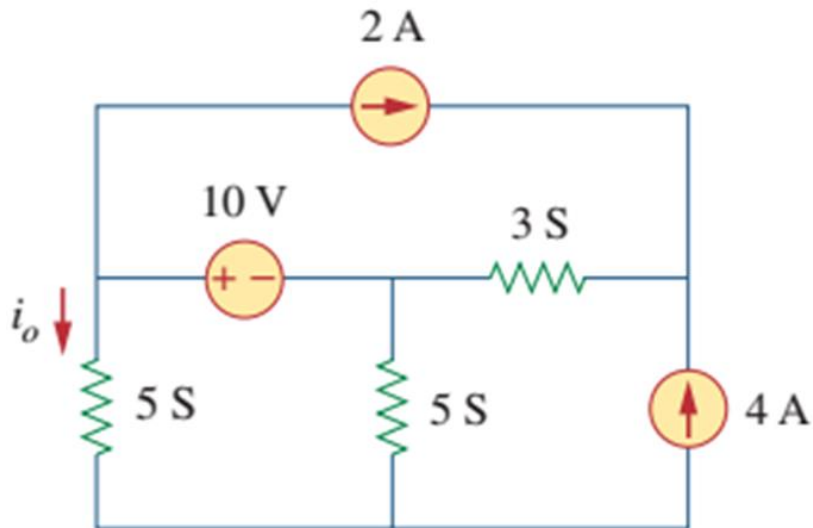
Rules:

- Work on your own. Discussion is permissible, but extremely similar submissions will be judged as plagiarism.
- Please show all intermediate steps: a correct solution without an explanation will get zero credit.
- Please submit on time. No late submission will be accepted.
- Please prepare your submission in English only. No Chinese submission will be accepted.

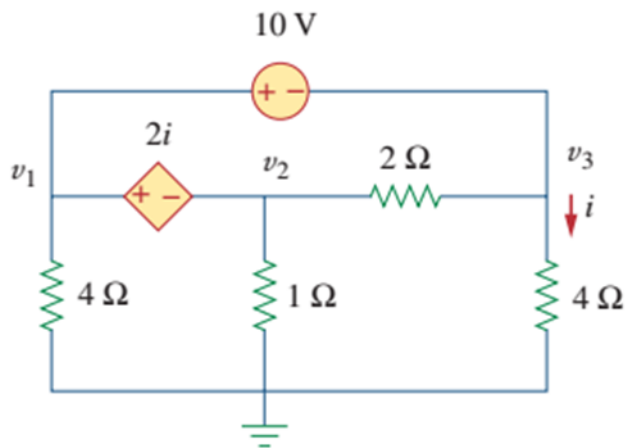
1. Using nodal analysis, find v_o



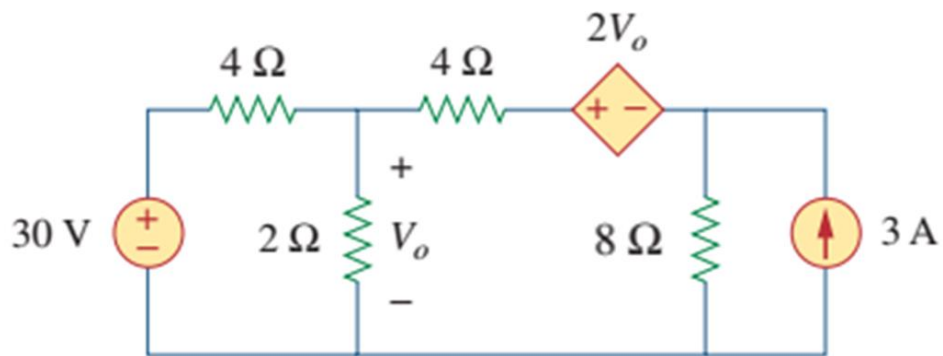
2. Apply nodal analysis to find i_o , and the power dissipated in each resistor.



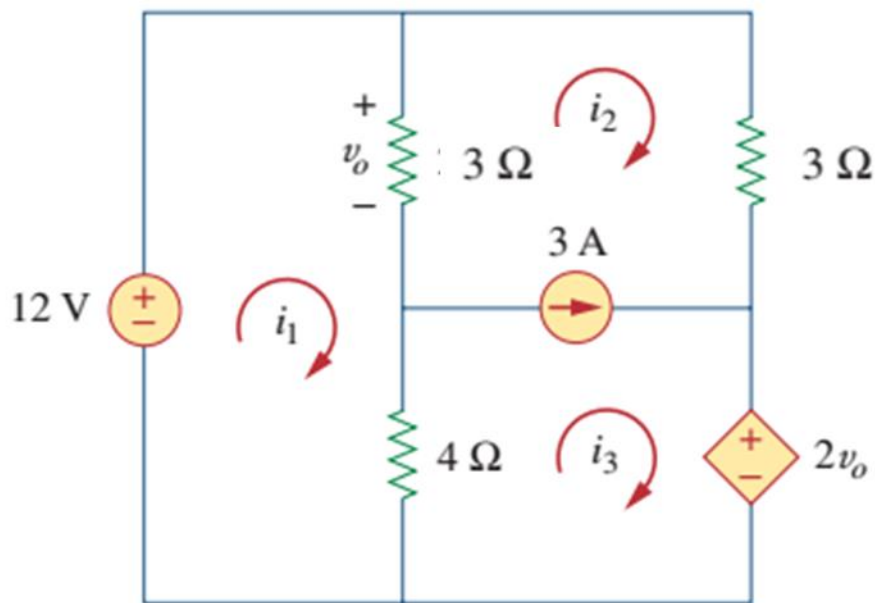
3. Using nodal analysis, find v_1 , v_2 , and v_3 .



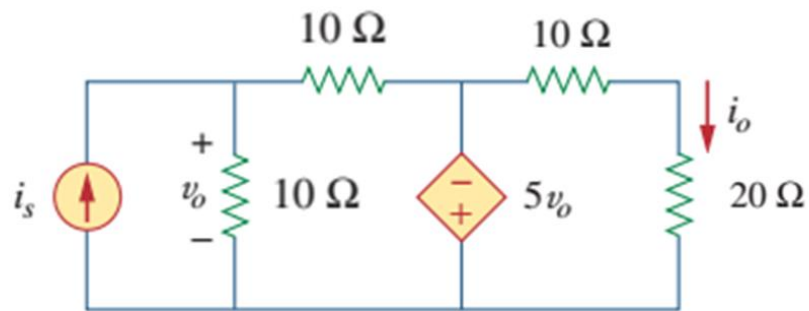
4. Find V_o using the two methods you learned from EE111, (1) Nodal analysis; and (2) Mesh analysis.



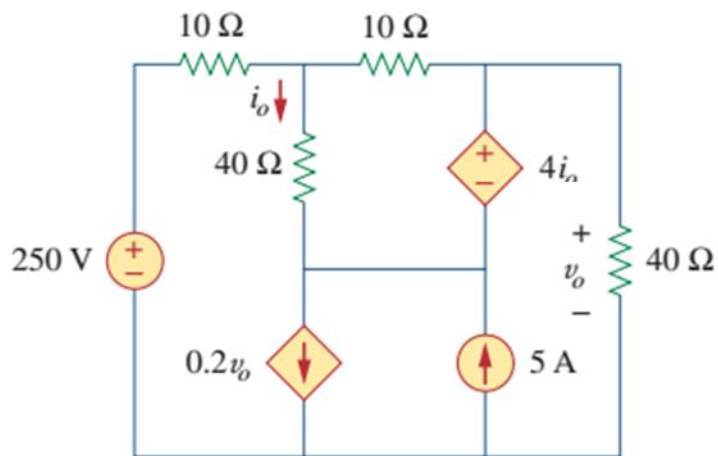
5. Use two different methods to solve i_1 , i_2 , & i_3 in the following circuit.



6. Calculate i_s/i_o in the following circuit:



7. Find v_o and i_o in the following circuit.



8. Find the current through R2 and R3, indicate their value and direction.

