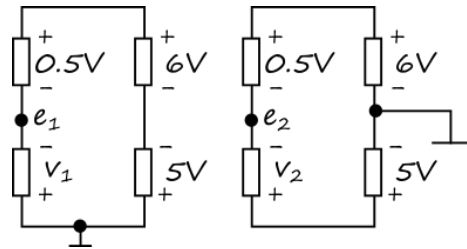


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CSU0007 - Basic Electronics

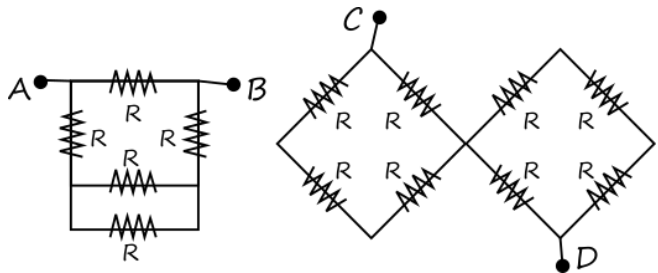
Homework 2

Seven questions. 100 points total. Due on 10PM, Tuesday, 3/31/2020. Submit your answer via Moodle
Clearly state each step of your calculation to receive full score.

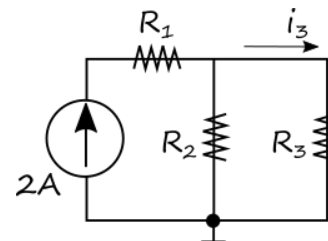
1. (20 points) Find the node voltages e_1 and e_2 and the branch voltages v_1 and v_2 . 5 points each.



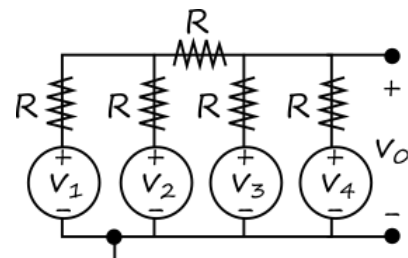
2. (10 points) Find the equivalent resistance from the viewpoint of A-B and from that of C-D. 5 points each.



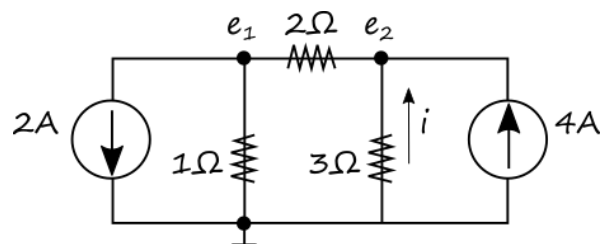
3. (10 points) Find the current i_3 . -----



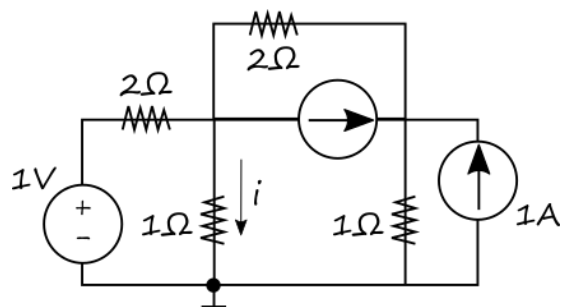
4. (10 points) Find the voltage v_0 . -----



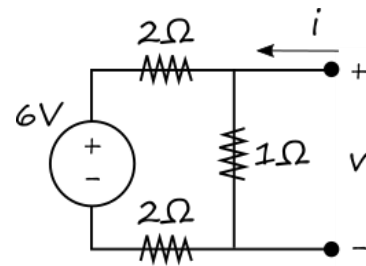
5. (15 points) Find node voltage e_1 and e_2 , and then find the current i . 5 points each.



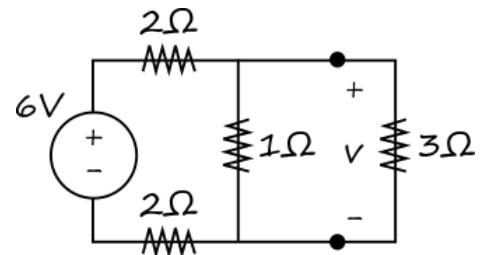
6. (10 points) Find the current i . -----



7. (25 points) Thévenin's Theorem and its application:
 7a. (10 points) Find R_{TH} and V_{TH} of the following circuit:



- 7b. (5 points) Use the result from 7a to find the voltage v here. -----



- 7c. (10 points) In the following circuit, find the current i . (Hint: study Example 3.22 in the textbook)

