

Name _____

EE/EET 2240-01/02

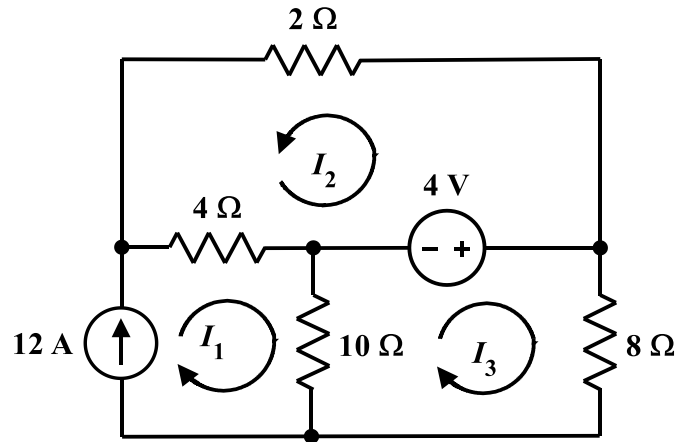
Exam #2

Thursday, March 29, 2018

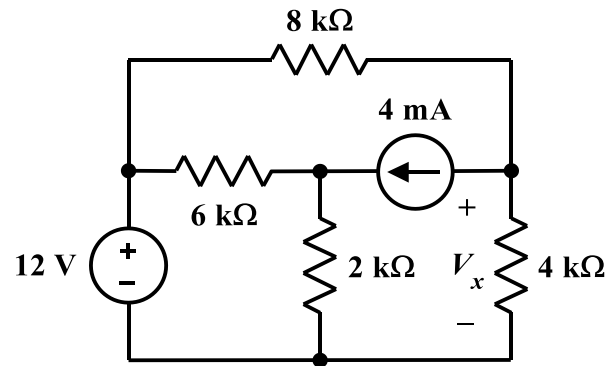
LIBR B-13 and TAB 115, 9:30AM – 10:45AM

[closed book – one two-sided 8½”×11” page of notes and calculator allowed, nothing else]

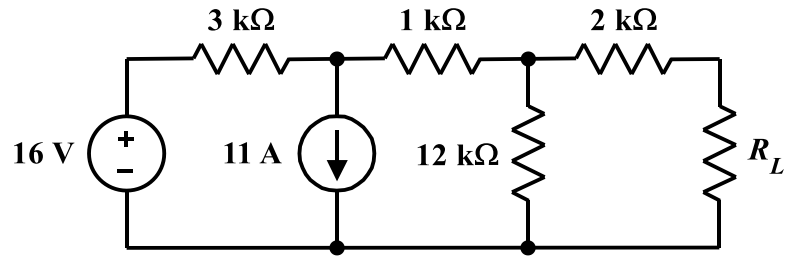
1. The network shown below is to be analyzed by the mesh method. Mesh currents have been pre-assigned. Determine an appropriate set of equations and express them in the standard matrix form used in class. Do not attempt to solve the equations.



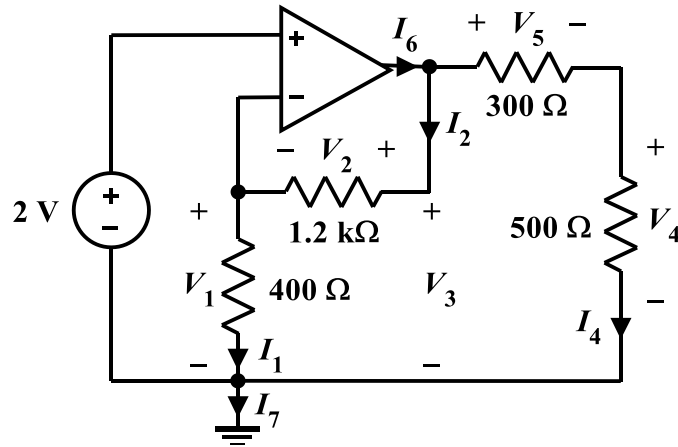
2. Suppose the voltage V_x is to be determined by the superposition method. Show how to find, and determine the value of, the contribution due to the 12-V independent voltage source.



3. What value of R_L will absorb maximum power from the remainder of the network shown below?



4. The Op Amp shown in the circuit below is ideal.



Determine the following. Show your work and indicate proper units for each answer.

a. $V_1 =$ _____

b. $I_1 =$ _____

c. $I_2 =$ _____

d. $V_2 =$ _____

e. $V_3 =$ _____

f. $V_4 =$ _____

g. $I_4 =$ _____

h. $V_5 =$ _____

i. $I_6 =$ _____

j. $I_7 =$ _____