

Inter American University of Puerto Rico  
Bayamón Campus  
School of Engineering  
Department of Electrical Engineering

ELEN 3301 – Electric Circuits I

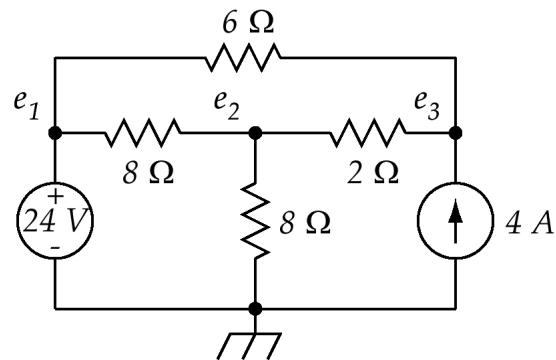
Problem Set 3

*Due Wednesday, September 15*

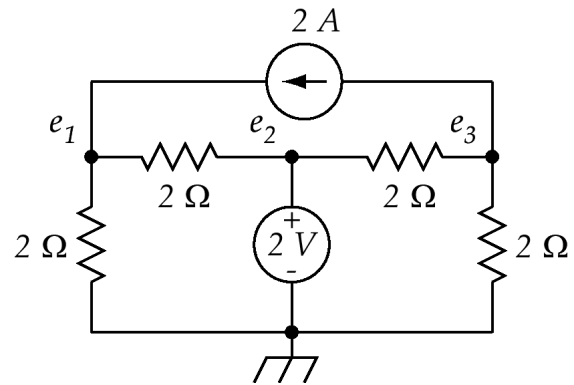
**Reminder:** Quiz 1 will be offered Wednesday, September 22 and will cover material given in class until September 8.

**Problem 1:** Find node voltages  $e_1$ ,  $e_2$  and  $e_3$  for the networks shown below using superposition (Note that the ground node has been chosen):

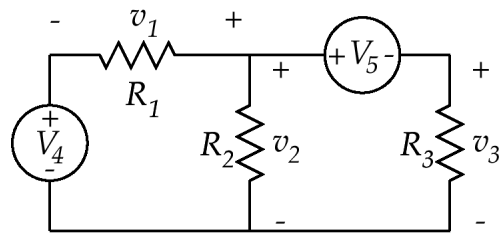
(A)



(B)

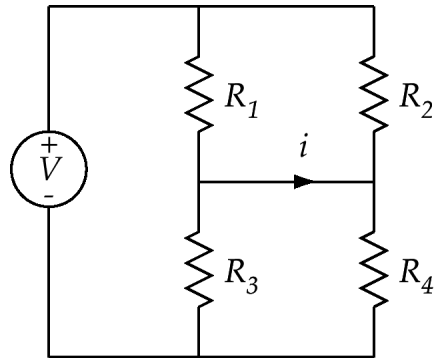


**Problem 2:** Find voltages  $v_1$ ,  $v_2$  and  $v_3$  in the following circuit using superposition:



**Problem 3:**

(A) Find the current  $i$  in the following circuit:



(B) Find the Norton equivalent of the following circuit (*Hint: Part (A) of this problem is helpful*).

