

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

ELEN 3301 – Electric Circuits I

Quiz 1

Wednesday, September 29

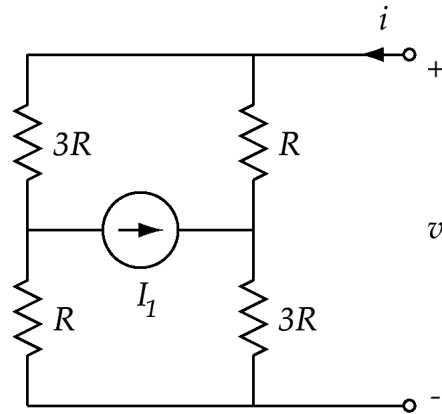
Name: _____

Enter all your work and your answers directly in the spaces provided on the printed pages. Full credit will only be given to answers that you neatly transfer to the spaces on the printed pages. Answers must be derived or explained, not just simply written down. The quiz is closed book, and calculators or notes are **not** allowed.

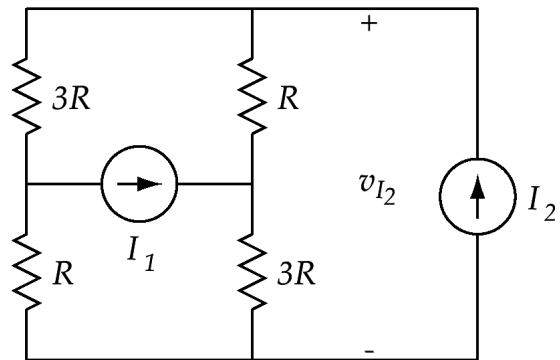
Problem	Points	Grade
1	50	
2	50	
Total	100	

Problem 1:

- (A) (40 points) Find the Thevenin equivalent of the circuit shown below looking into the marked terminals.

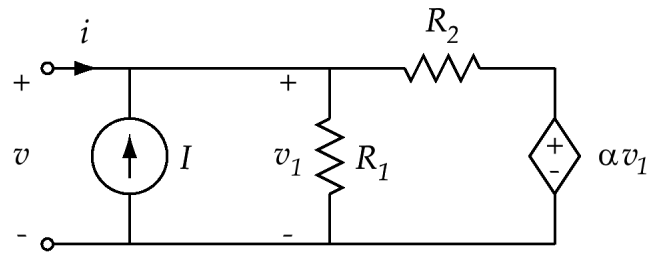


- (B) (10 points) The circuit is now connected to a current source I_2 as shown below. Find the voltage v_{I_2} across the current source I_2 .



Problem 2:

- (A) (45 points) Find the Thevenin or Norton equivalent of the circuit shown below looking into the marked terminals.



(B) (*5 points*) Evaluate your results for part (A) if $\alpha = 0$. Interpret this result using the circuit.

(C) (*10 bonus points*) Evaluate your results for part (A) if $\alpha = 1$. Interpret this result using the circuit.