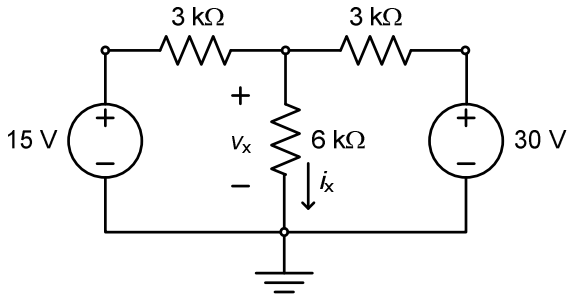
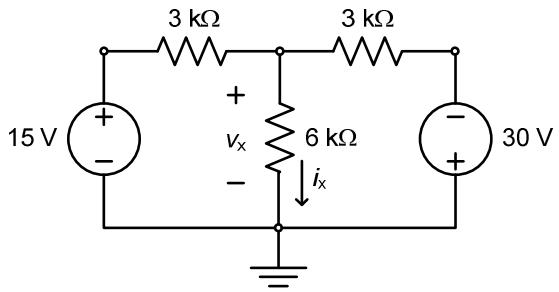
EE271 Quiz 4 Spring 2013 Name_____

In this quiz, you are welcome to use your lab notebook as well as the lab manual.

1. (25 points) In the circuit shown, use superposition principle to find the values of v_x and i_x using the superposition principle. Provide appropriate units for your answers. Box your answers.

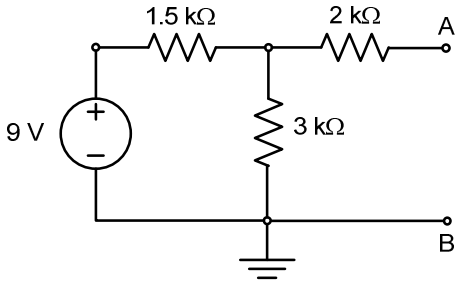


2. (25 points) In the circuit shown, find the values of v_x and i_x using the superposition principle. (Hint: Use the results of Problem 1.) Box your answers.



Please look at the back page for Problems 3 & 4!

3. (25 points) Find the Thevenin equivalent of the circuit seen between A and B terminals as shown.



4. (25 points) In the circuit shown, find the value of *R* that will maximize power delivered to the 3 kΩ resistor. What is the maximum power delivered to the 3 kΩ?