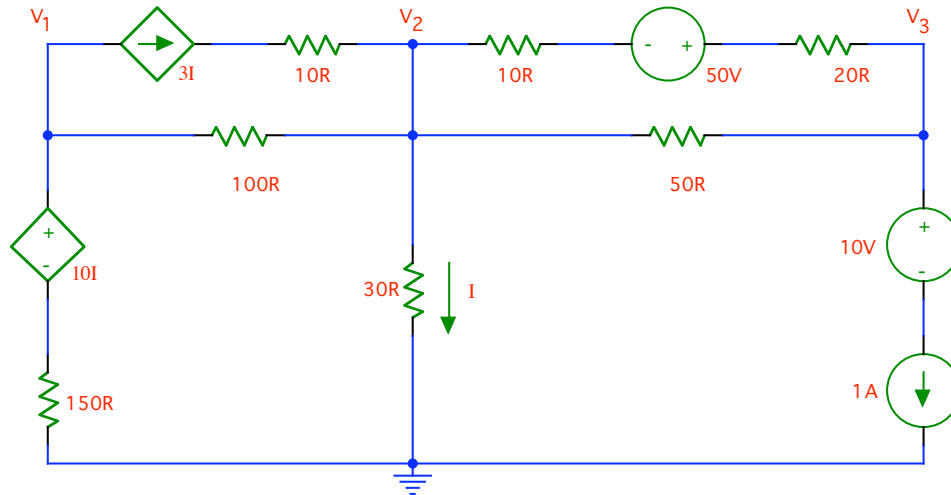


ECE 211 Fall 2003

Homework Three

(Due 10/1/03 at the beginning of discussion.)

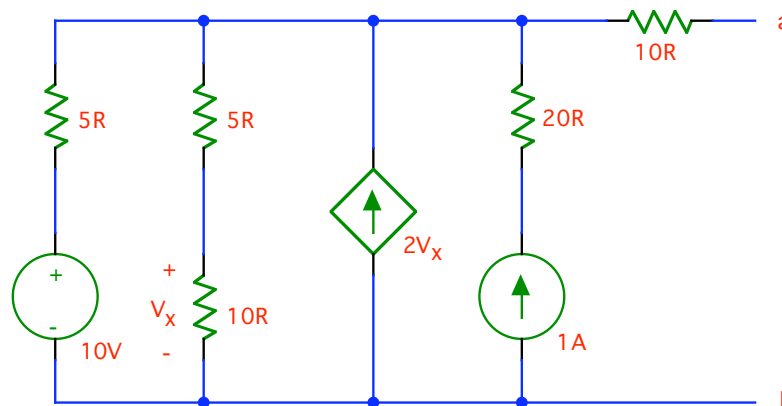
Problem One:



For the above circuit:

- What are V_1 , V_2 , and V_3 ? You will have 3 equations and 3 unknowns which you may solve using any tool you like (programmable calculator, Mathematica, MATLAB, ...)
- What power is supplied by each source (5 answers with signs, + for supplied, - for absorbed)?
- What power is dissipated by each resistor (7 answers)?
- Show that the sum of the power dissipated by the resistors equals the sum of the power supplied by the sources?

Problem Two:



For the above circuit:

- What is the Thevenin voltage seen at terminals a-b?
- What is the Thevenin resistance seen at terminals a-b?