EE 42
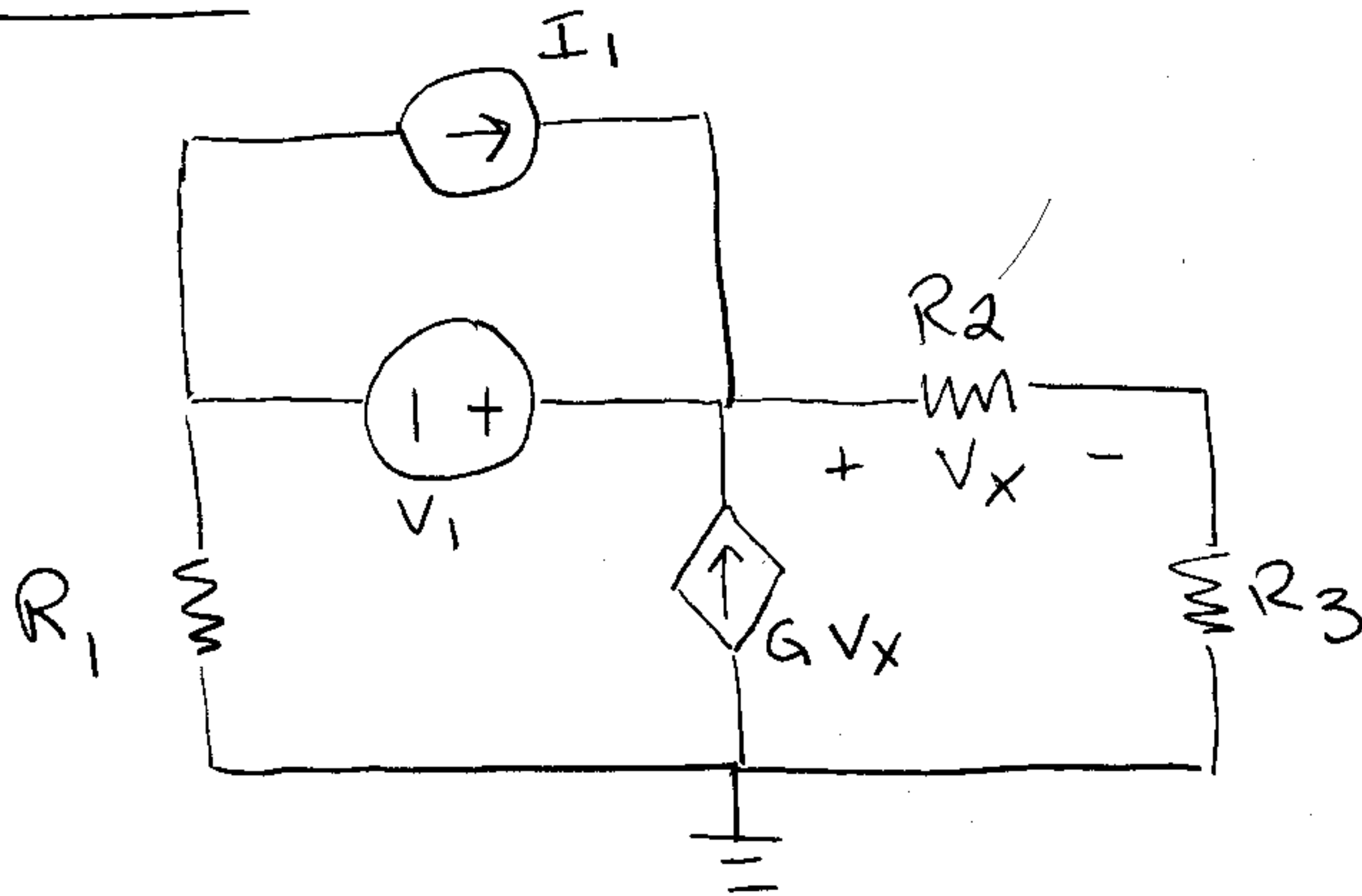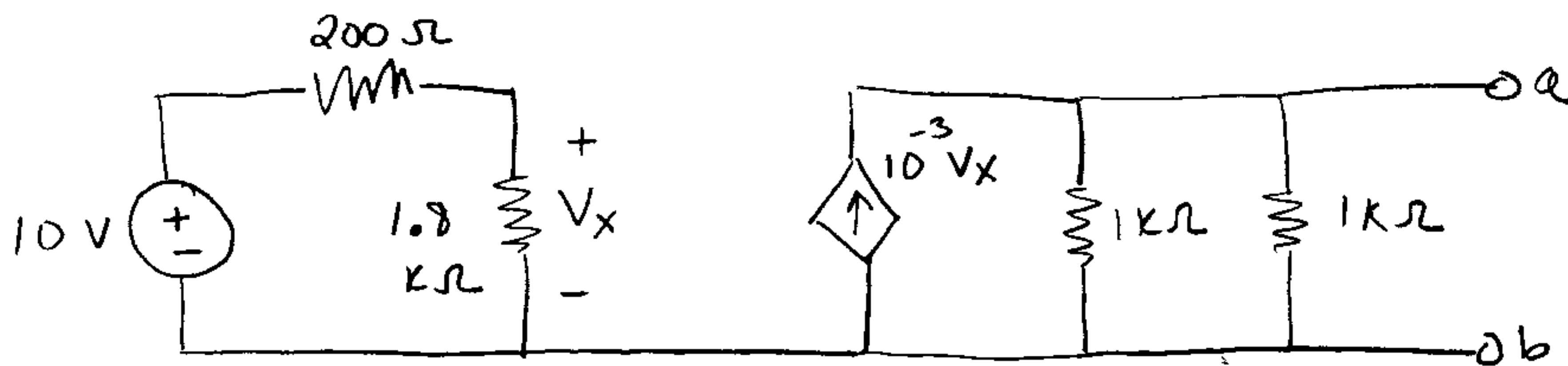
Problem 1:

Label the nodes with unknown voltages, and write the nodal analysis equations (you do not need to solve for the unknown voltages).
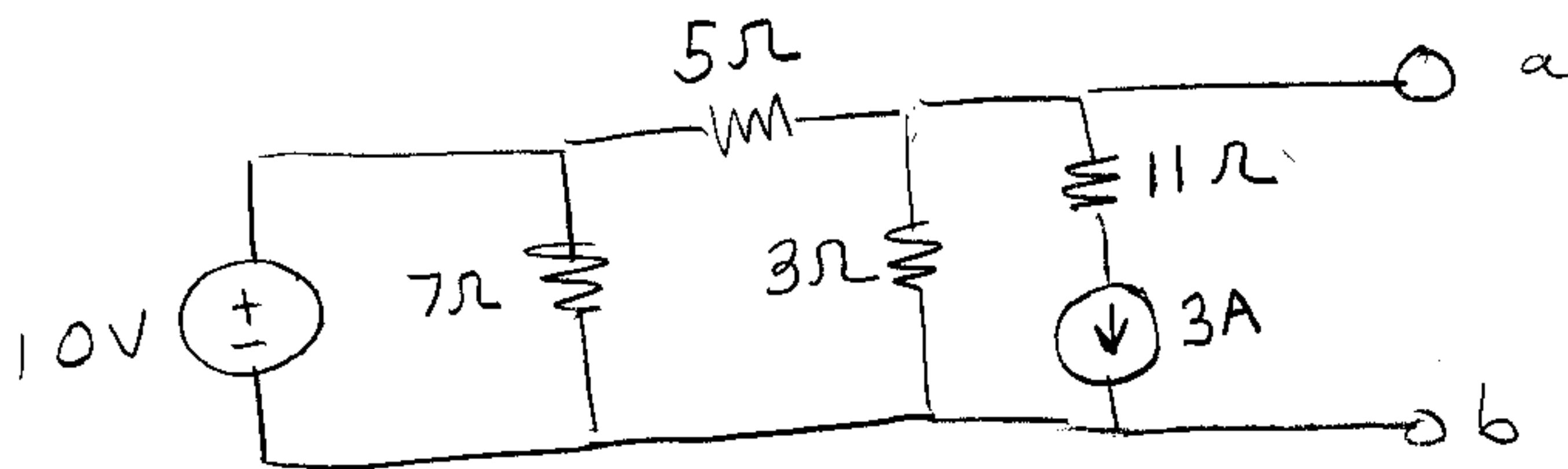
Problem 2:

Find the Thevenin and Norton equivalents.
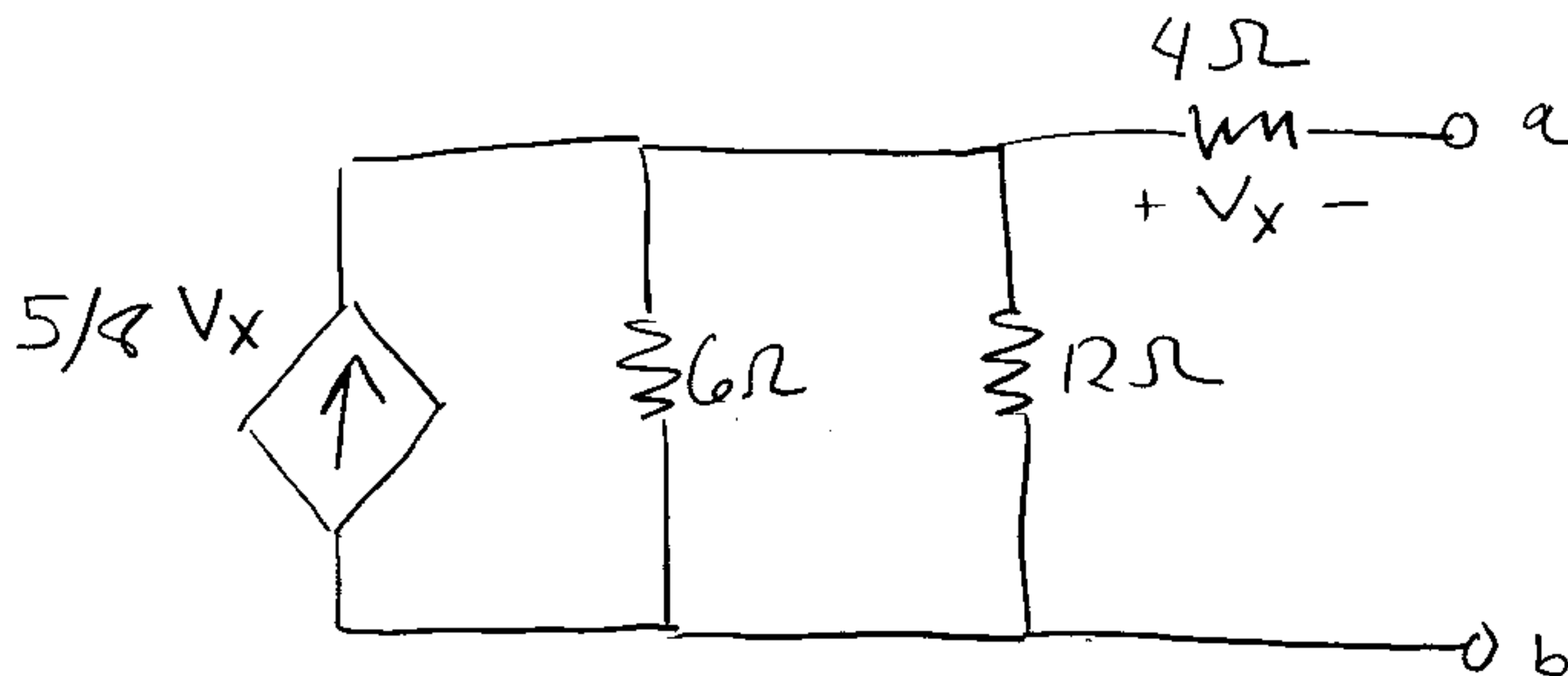(P.S. This is a model of a transistor.)
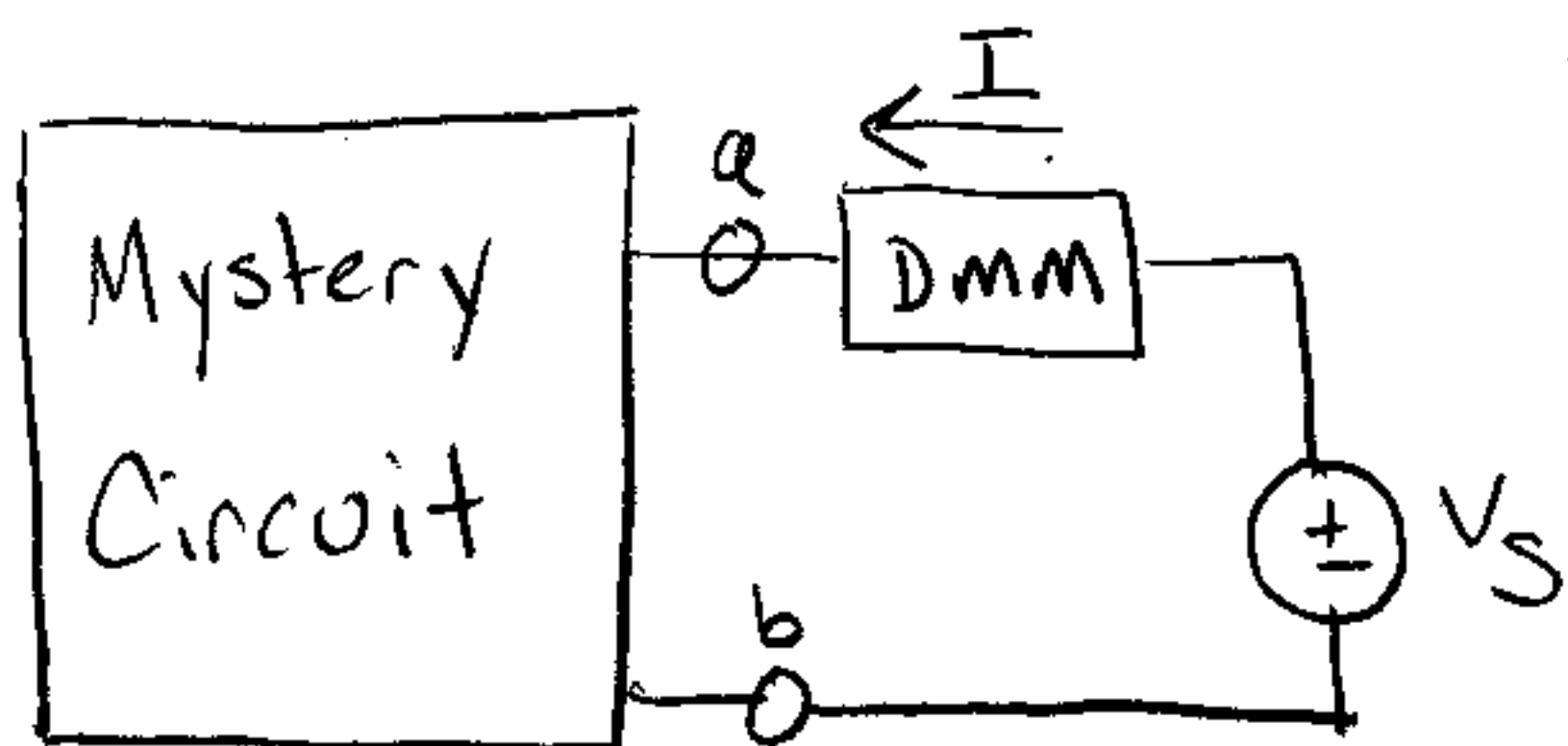
Problem 3:

Find the Thevenin and Norton equivalents.

Problem 4:

Find the Thevenin and Norton equivalents.

Problem 5:

To see what my "mystery circuit" is, I perform two tests:

1) With V_S set to 0V, the DMM measures I to be 1A.

2) With V_S set to 10V, the DMM measures I to be 3A.

The DMM has a resistance of 1Ω. Find the Thevenin and Norton equivalents of the mystery circuit.