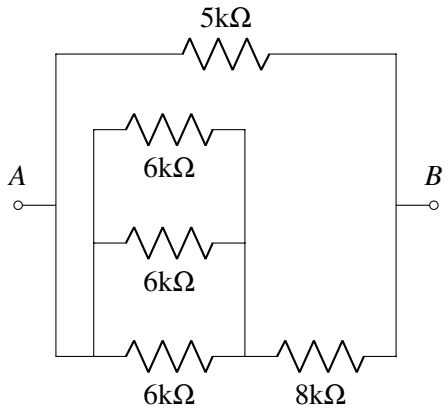
EECS 16A Designing Information Devices and Systems I
Spring 2022 Discussion 8A

1. Series and Parallel Combinations

For the resistor network shown below, find an equivalent resistance between the terminals A and B using the resistor combination rules for series and parallel resistors.

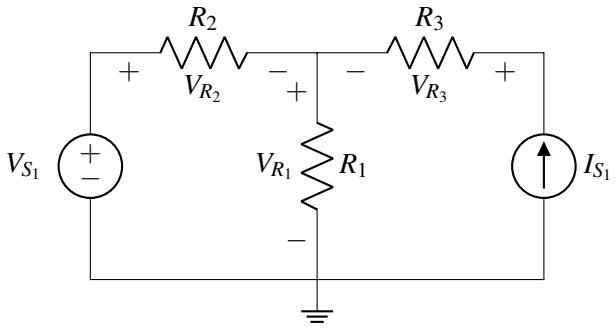


2. Superposition

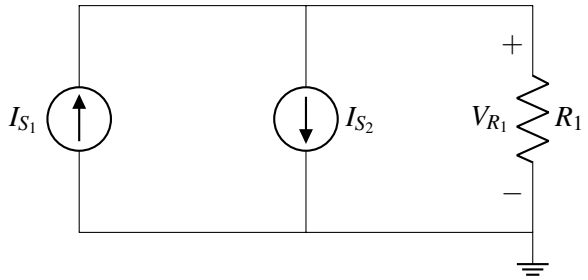
For the following circuits:

i. Use the superposition theorem to solve for the voltages across the resistors. First, redraw the circuits with just one source (while zero-ing the other source). Then, for each circuit solve for each element voltage. Finally, sum the voltages at each node.

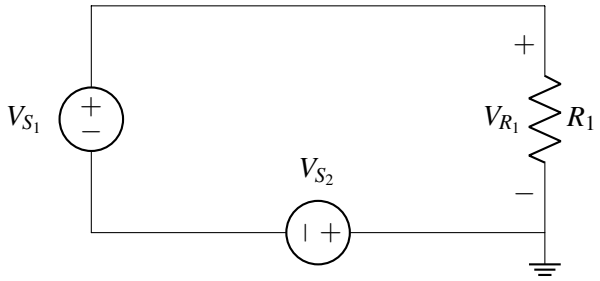
(a)



(b)

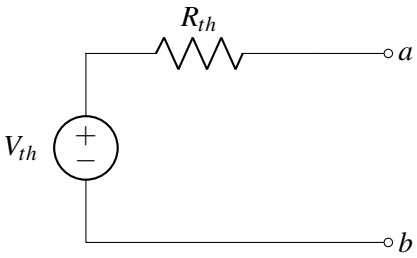


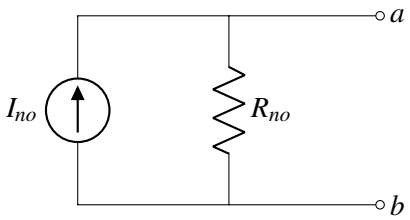
(c) (**PRACTICE**)



3. Thevenin and Norton Equivalence

The general Thévenin and Norton equivalents are shown below:





Find the Thévenin and Norton equivalents across terminals a and b for the circuit given below.