

EECS 16A Designing Information Devices and Systems I

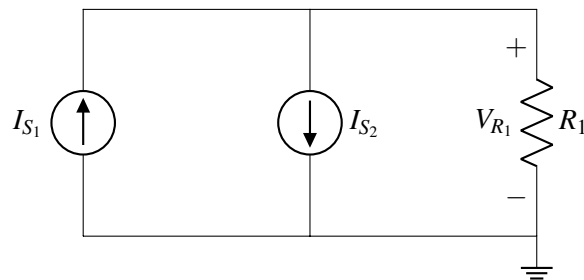
Summer 2020 Discussion 4A

1. Superposition

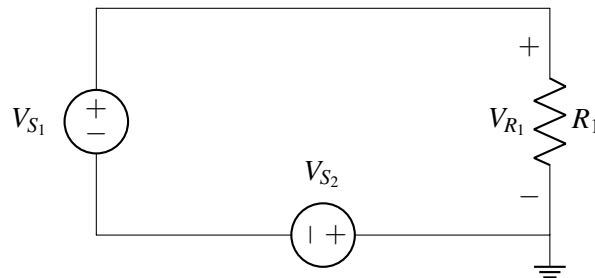
For the following circuits:

- Use the superposition theorem to solve for the voltages across the resistors.
- For parts (a) and (b) only, find the power dissipated/generated by all components. Is power conserved?

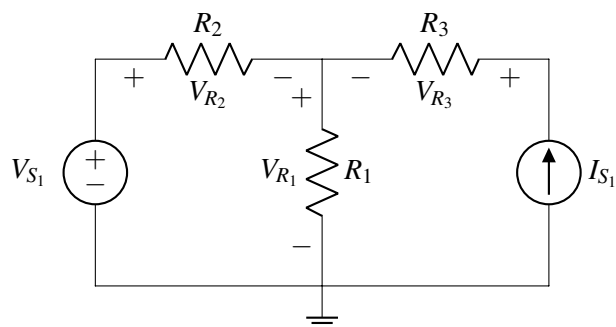
(a)



(b)



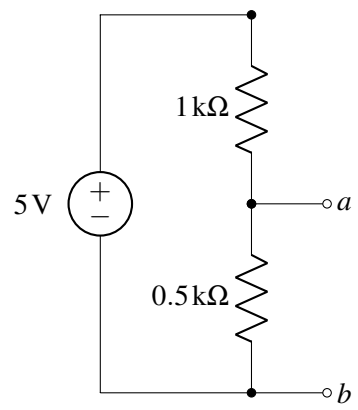
(c)



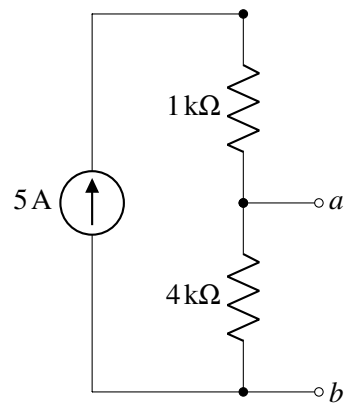
2. Thevenin and Norton Equivalence

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

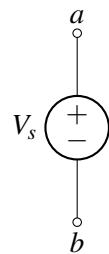
(a)



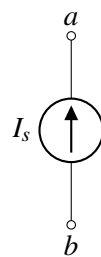
(b)



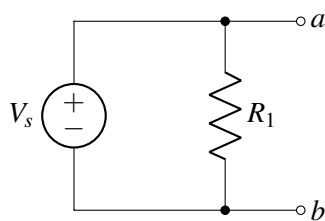
(c)



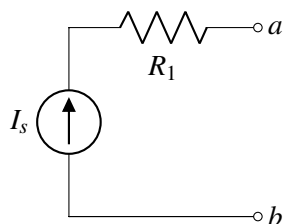
(d)



(e) (Practice)



(f) (Practice)



3. Series and Parallel Combinations

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

