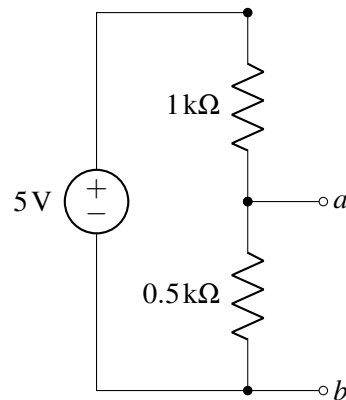

EECS 16A Designing Information Devices and Systems I

Spring 2019 Discussion 7B

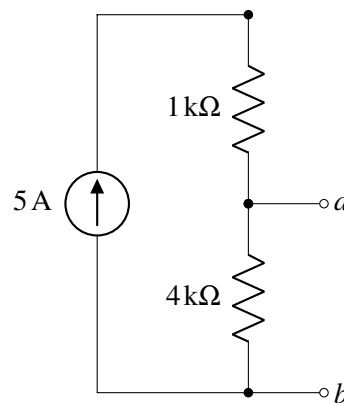
1. Equivalence

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

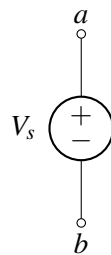
(a)



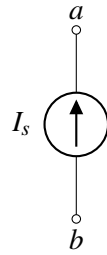
(b)



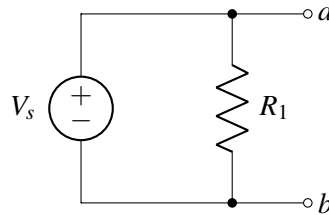
(c)



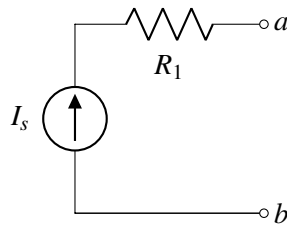
(d)



(e) (Practice)



(f) (Practice)

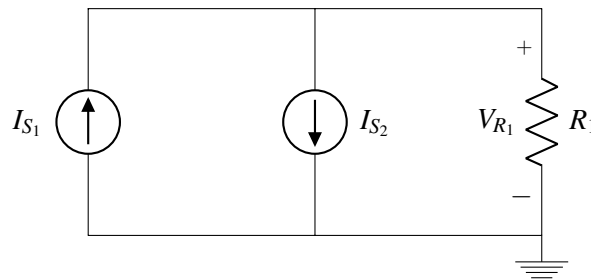


2. Super-power

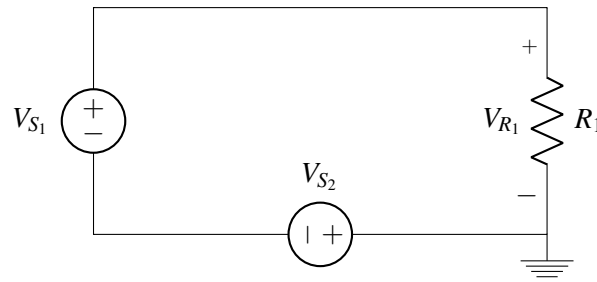
For the following circuits:

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

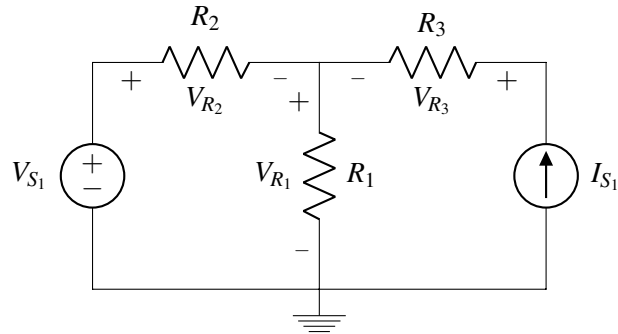
(a)



(b)



(c)



3. Equivalence

Find the Thévenin equivalent of the following circuit across the terminals a and b (in terms of V_s and β). Note that the current source is dependent on the current I_x .

