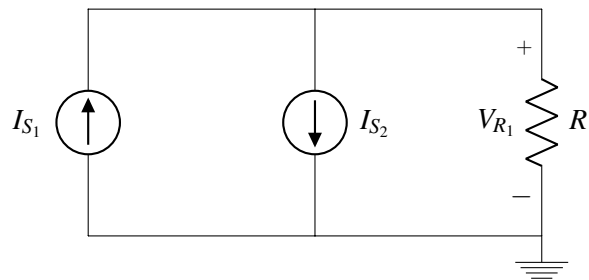


1. Super-power

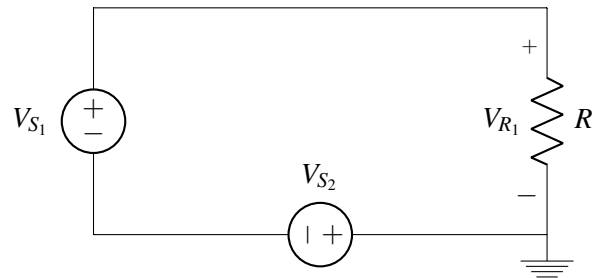
For the following circuits:

- 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?

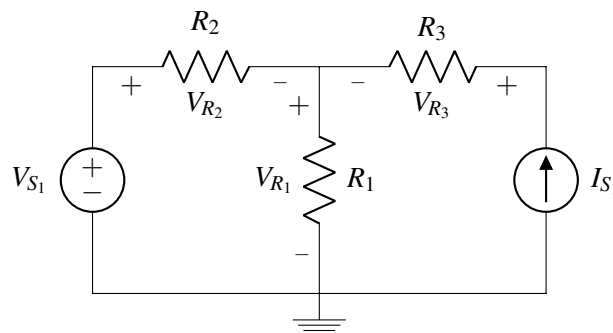
(a)



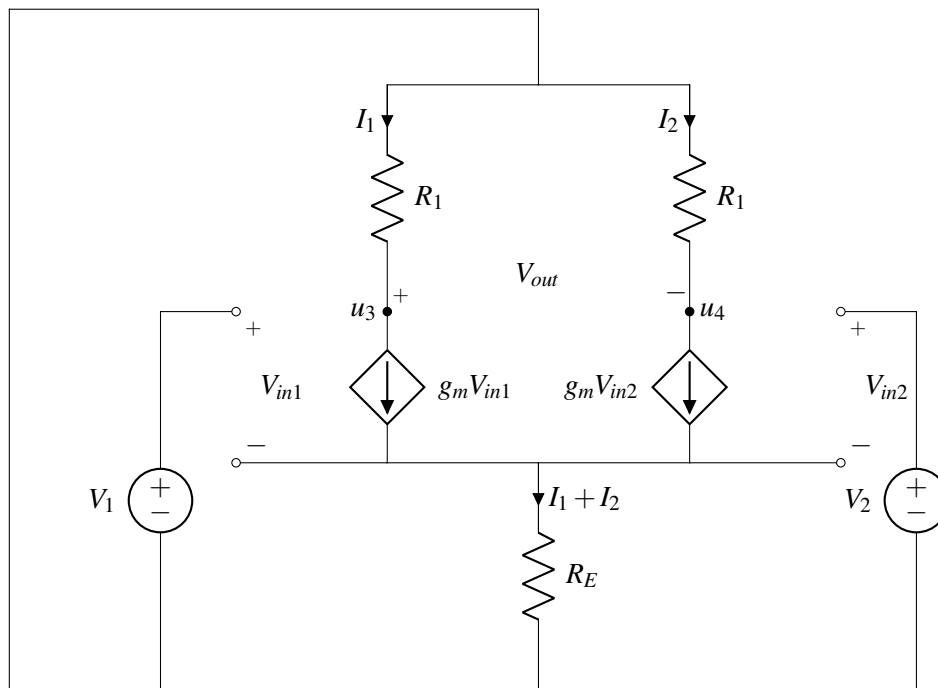
(b)



(c)



2. Superposition



- Calculate V_{out} with only V_1 on. Repeat this with only V_2 on.
- Let's now turn on both V_1 and V_2 . What is the output V_{out} ? What does this circuit do to arbitrary input voltages?

3. Circuit Analysis

Solve for the voltages across and the currents flowing through each component.

