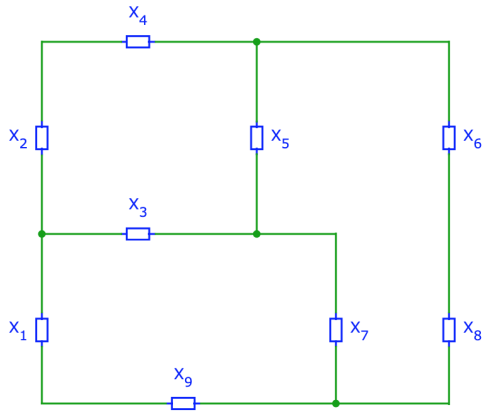
# EECS 16A Designing Information Devices and Systems I
# Summer 2020 Discussion 3A

## 1. Nodes and Branches

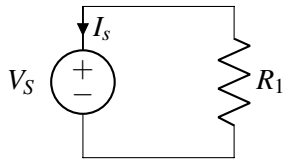
In the circuit shown below, label and count all nodes and branches.



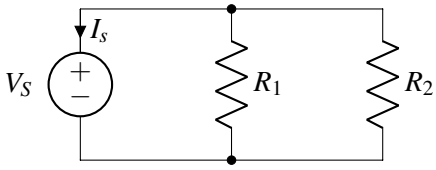

## 2. A Simple Circuit

Use KVL and/or KCL to solve the following circuits.

(a) For this problem assume $V_S = 1V$ and $R_1 = 1k\Omega$. Find the current, $I_s$ flowing through the voltage source.




(b) For this problem assume $V_S = 1V$, $R_1 = 2k\Omega$, and $R_2 = 2k\Omega$. Find the current, $I_s$ flowing through the voltage source.




## 3. Practice: Voltage Divider

For the circuit below, find the voltage $V_{out}$ in terms of the resistances $R_1$, $R_2$, and $V_s$.

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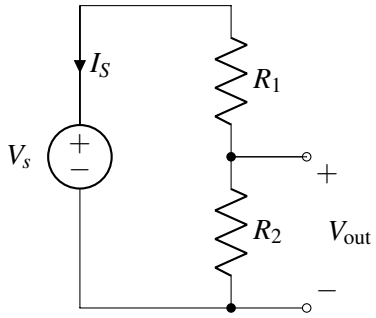


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