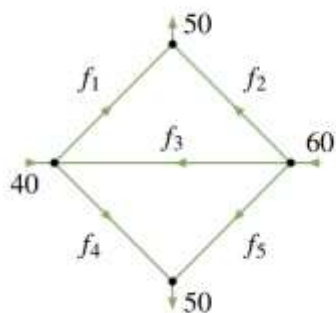


Math 260: Linear Algebra
Sections 1.4-1.6 Homework Problems

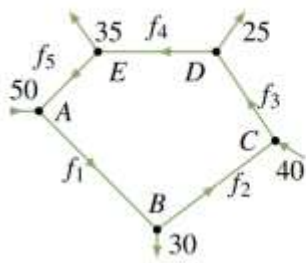
Book Problems: Section 1.4: #1a

Exercise 1.4.1 Find the possible flows in the following networks of pipes.

a.



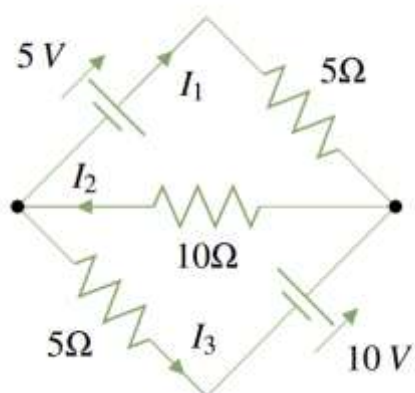
Exercise 1.4.3 A traffic circle has five one-way streets, and vehicles enter and leave as shown in the accompanying diagram.



- Compute the possible flows.
- Which road has the heaviest flow?

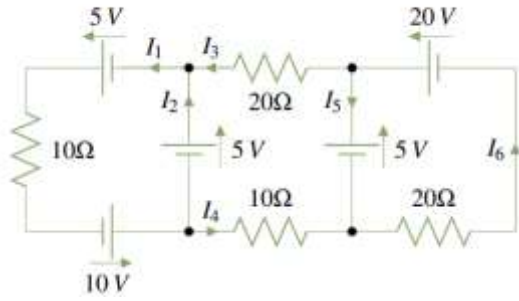
Book Problems: Section 1.5: #2

Find the currents in the circuit



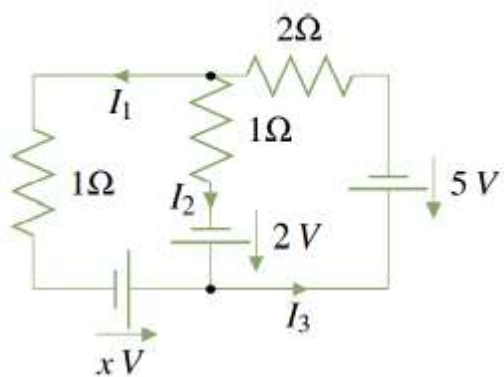
Book Problems: Section 1.5: #3

Find the currents in the circuit



Book Problems: Section 1.5: #5

Find the voltage x such that the current $I_1 = 0$.



Book Problems: Section 1.6: #1

Balance the chemical reaction $\text{CH}_4 + \text{O}_2 \rightarrow \text{CO}_2 + \text{H}_2\text{O}$

Book Problems: Section 1.6: #2

Balance the chemical reaction $\text{NH}_3 + \text{CuO} \rightarrow \text{N}_2 + \text{Cu} + \text{H}_2\text{O}$