

PHYS 240 homework #10 – due Mar 1 2013, 5:00pm, upload to Canvas

Kirchhoff's laws and linear equations

1. Using Kirchhoff's laws in circuit problems involves solving a set of simultaneous equations. Consider the simple circuit illustrated below. Write a program that computes the currents using Gaussian elimination, given the resistances and voltages as inputs. Be sure to check that the answers are correct – both using the SciPy `linalg` module, and by direct substitution.

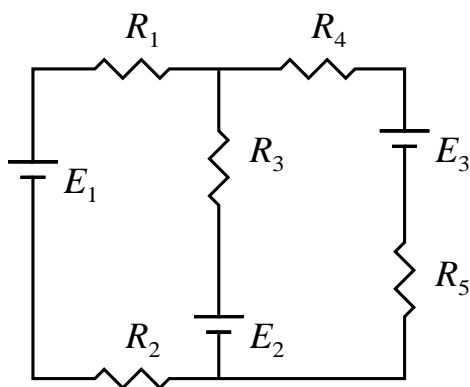


Figure 1: A simple resistor network.

2. Include any discussion in a report generated in \LaTeX . Also submit your Python code separately.