

Summary of Problem Statement**Problem #** _____

Create a user defined function to calculate all currents, analyze the effect of current, and the impacts of said current on voltage.

Known / Input

Voltage 1

Resistance 1
Resistance 2
Resistance 3

Unknown / Output

Current 1
Current 2
Current 3

Voltage 2

Assumptions

none

Other Variables**Algorithm**

Code will call out function VR.m
Using linear equations, The code solves for currents 1, 2 and 3 using a user-defined function named CircuitSolver
Once solved, Code outputs a 3x3 cell array
The first column is Voltage 1 and 2 with the 3rd row blank
Second column: Resistance 1, 2, and 3
Third column: Current 1, 2, and 3
Using CircuitSolver, The code will find the minimum and maximum of Voltage 2 where current will not exceed 1 amp
Resistance 3 will range from 15 - 115 ohms
Use CircuitSolver to find the minimum and maximum voltage for each Resistance 3
Use CircuitSolver to find the average voltage range
Output these to the command window
Plot minimum and maximum vs Resistance with proper details
Output answer to question in the command window

Test Cases