OHM'S LAW and Resistance

You will receive no credit for items you complete after the assignment is due

First Read the introductions discussions in the exercise in the lab book for an overview. Secondly Read in your text book pages 607-609(key concept Voltage) and 651-658(resistance). Be sure to try to be familiar with concepts like potential difference, Voltage, Current, Resistance and lightly resistivity and finally OHM'S law itself. EQUATION V=IR and definition of resistivity.

In a nutshell! The current I is the flow of electrons, V is the energy that pushes them and R is the resistance to the flow..

Classroom example: 50 football players in the room (voltage) run to the door(size of door is the resistance) the number of players getting out in time through the door is the current(flow).

QUESTIONS TO HAND IN

Define the electric potential, V?

Define electric current, I?

Give the Resistance R is it dependent on V or I or independent?

 Specify the units of R, V and I

  Express OHM's law as an equation?

  Do all devices used in electronics follow ohm's law? Give an example of a nonohmic device?

PROBLEMS TO ATTACH TO YOUR FINAL LAB REPORT

P1. Assuming a flashlight bulb behaves like an ohmic device, it draws 300mA from a battery of 3 V what is its Resistance.

P2. Voltage drops to 1.4 V in problem 1 what is the current drawn now?

P3. A steady current of 4.5 A exists in an ohmic device for 3.0 min While a voltage o 6 V is applied.

How much charge flows through this device?

    a.   What is the resistance of this device?