CSEE100 LAB

Name: _____

Ohms Law

Date: _____

Reading

Lecture notes

Materials

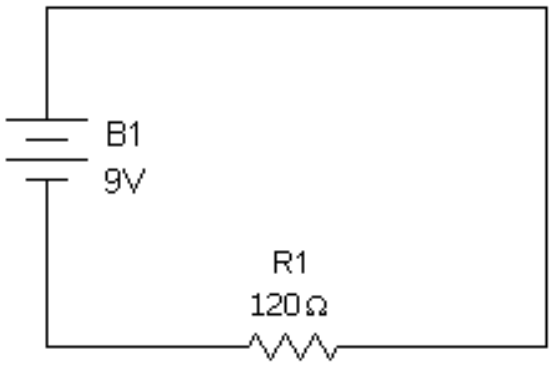
- Tronix 1 Lab Manual *Basic Electronics "Fundamental Concepts"* by Gary Gibson
- Tronix 1 Lab Kit *Basic Electronics "Fundamental Concepts"* by Gary Gibson
- Variable DC Power Source
- Test cables (2)
- Multimeter

Objectives

After performing this section of the experiment, you will be able to:

1. Verify Ohms Law using the multimeter.
2. Measure the value of current, voltage, and resistance in a basic circuit.

Procedure



TEST CIRCUIT

3. Go to page 72.
4. Follow Step 1 by using a 120Ω resistor instead of the 1000Ω for R1, then using the multimeter measure the voltage (**V**) across R1. Record this value in Table 1.
5. Follow Step 2, by using the multimeter and measure the current (**I**) through R1. Record this value in Table 1.
6. Follow Step 3, by using the multimeter and measure the resistance (**R**) of R1.

Table 1		
R	**I**	**V**

7. Using the data from Table 1, calculate the value of each variable using Ohms Law.

Table 1	
I =	
V =	
R =	

Questions

1. In your test circuit, replace R1 with a 1000Ω resistor then calculate the value of current you should read.

2. In your test circuit, if you changed your B1 voltage source to 12V with an R1 value of 120Ω, calculate the value of current you should read.

3. In your test circuit, if your current changes to .075A, and your B1 voltage source stays at 9V, what is the value of R1?

4. In your test circuit, if your current changes to .05A, and your R1 is 220Ω, what is the value of voltage ?