Introduction to Electrical Engineering

Assignment #7

Javier Jesús Macossay-Hernández

Student ID: #20228488

Tuesday, February 26, 2013

Assignment #7

Lab Procedure:

1. Build the prototype circuit shown in Figures 1- 3 on a breadboard.
2. Measure the voltages across all resistors and report the values in Table 1.

Table 1: Measured voltages across resistors

|  |  |
| --- | --- |
| Voltage | Measured Value |
| V1: Voltage Across R1 | 1.1058 V |
| V2: Voltage Across R2 | 1.6725 V |
| V3: Voltage Across R3 | 2.2225 V |
| V1+ V2 + V3 = Total Voltage | 5.0008 V |

1. Were you able to verify Kirchhoff’s Voltage Law from the measurement reported in Table 1? Explain.

Yes I was able to verify the law from the measurement reported in Table 1, the Kirchhoff’s Voltage Law dictates that if I subtract the value of every resistor from the total voltage (5 volts) I am going to get 0 (zero) as a result, because it is a closed circuit. The initial voltage has to be the same magnitude as the sum of all of the voltages of the resistors; it resumes in the conservation of energy.

5.0008 V – 2.2225 V – 1.6725 V – 1.1058 V = 0