**Experiment 3**

**Topic: DC *CURRENT AND VOLTAGE MEASUREMENT-II***

**Goal:** Measuring current and voltage using Avometer

I. Setup the circuit given in Figure 3. Fill in the Table 2 by making measurements.



2.2

K



R4



Ω

270



R1



R2



100

Ω



12

V



R3



1

K

**Figure 3**

**Table 2**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Resistor** | **Value** | **V** | **I** | **P** |
| R1 | 1K | 3,669 V | 3,673 mA | 13,48 mW |
| R2 | 270 Ω | 268 mV | 2,680 mA | 718,24 µW |
| R3 | 100 Ω | 268 mV | 992,8 µA | 266,1 µW |
| R4 | 2.2K | 8,063 V | 3,673 mA | 29,62 mW |

According to Table 2, are the equations given below correct? Explain.

1. IR1 = IR4 = IR2 + IR3 Doğru, ana kola dağılan ve sonra toplanan akımlar eşit.
2. VR2 = VR3 Doğru, paralel kollarda gerilim eşit.
3. VR1 + VR2 + VR4 = 12V Doğru, devredeki gerilim 12V.

# PR1 + PR2 + PR3 + PR4 = PTOPLAM Devrede harcanan toplam enerjiyse doğru.