



## Basic Electricity – Unit 19: Troubleshooting

### Lab 1

1. Measure the resistance of the contacts of switch 1.

Open resistance = \_\_\_\_\_

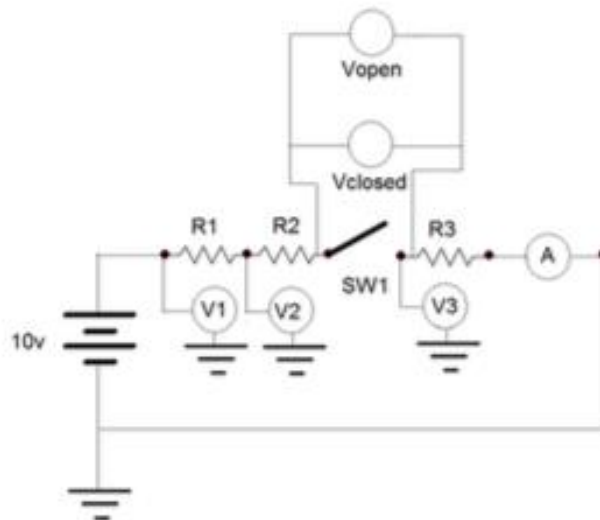
Closed resistance = \_\_\_\_\_

2. Construct the test circuit based on the following schematic diagram.

R1 = 1000  $\Omega$

R2 = 1200  $\Omega$

R3 = 1500  $\Omega$





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3. Measure the voltages VR1, VR2, and VR3 with respect to ground. Measure the current of the circuit.

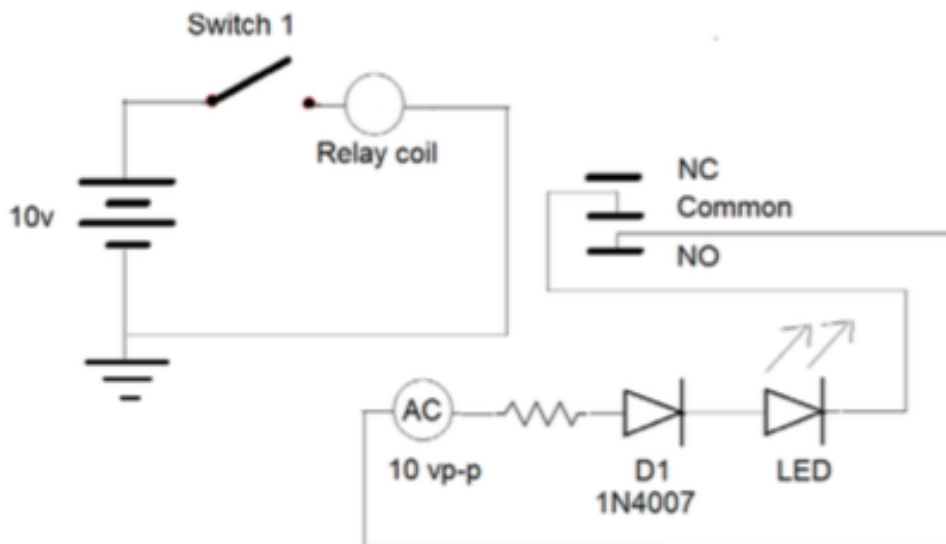
V1 = \_\_\_\_\_ V2 = \_\_\_\_\_ V3 = \_\_\_\_\_ Vopen = \_\_\_\_\_ Vclosed = \_\_\_\_\_

I = \_\_\_\_\_

4. Was the supply voltage across the switch when it was open or closed?

Answer \_\_\_\_\_

5. Construct the following circuit.



6. Make the circuit functional.

7. The instructor will bug the circuit. Find the location of the faults.





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### *Lab 1*

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