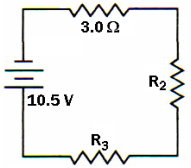
Questions

1. The circuit below shows three resistors connected in series to a 10.5 V battery.



   a. Draw a voltmeter onto the diagram to measure the voltage of R_2. Draw an ammeter onto the diagram to measure the total current in the circuit.

   b. If voltmeter V_1 reads 4.7 V and voltmeter V_2 reads 2.1 V, what is the potential drop across resistor R_3?

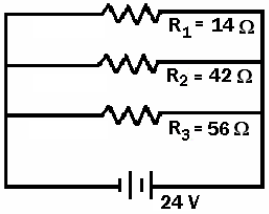
   c. Calculate the current that passes through R_1 and the following resistors (R_2 and R_3) in the circuit.

   d. Determine the resistance of R_2 and R_3.

2. Using the circuit diagram below, solve for the following information.

   a. Draw a voltmeter onto the diagram to measure the voltage of R_1. Draw an ammeter onto the diagram to measure the total current in the circuit.

   b. The voltage across each resistor.



   c. The current through each resistor.

   d. The equivalent resistance of the circuit.

Electric Circuits

Name _____

Definitions

1. Current - _____
   _____
2. Resistance - _____
   _____
3. Resistor - _____
   _____
4. Variable Resistor - _____
   _____
5. Voltmeter - _____
   _____
6. Ammeter - _____
   _____
7. Power - _____
   _____
8. Series Connection - _____
   _____
9. Parallel Connection - _____
   _____
10. Kirchoff's Junction Rule - _____
    _____

Equations

1.

2.

3.

4.

5.

Series Connection

6.

7.

8.

Parallel Connection

9.

10.

11.

Symbols & Units

Resistance	Potential Difference	Charge	Current	Power	Energy