Name: _____

Period: 1 2 3 4 5 6

Review Chapter 16

Part A: Terms

Define the following terms related current and electric circuits.

1. static electricity: _____

_____

2. Electricity: _____

_____

3. Electric current: _____

_____

4. Electric circuit:_____

_____

5. Resistor: _____

_____

6. Voltage: _____

_____

7. Volts: _____

_____

8. Amperes: _____

_____

9. Resistance: _____

_____

10. Fixed Resistor: _____

_____

11. Variable Resistor: _____

_____

12. Conductor: _____

_____

13. Insulator: _____

_____

Part B: Charge and Electric Circuits

Answer the following questions related to current.

1. The unit of charge is the _____.

2. Different charges _____ while like charges _____.

3. "Water" is to "pipes" as "electrical current" is to _____.

4. Draw a simple circuit diagram and label the following parts using electrical symbols: wire, battery, bulb, switch.

Part C: Resistance

Answer the following questions related to resistance.

1. What is resistance measured in? _____

2. What happens when to the current flow through a circuit if you add resistors to the arrangement?

3. Give 3 examples of conductors:

4. Give 3 examples of insulators:

Part D: Ohm's Law

Answer the following questions related to Ohm's Law.

1. What is the equation for Ohm's Law? (Label the correct units for each variable)

2. If a toaster produces 12 ohms of resistance in a 120-volt circuit, what is the amount of current in the circuit?

3. A circuit contains three 1.5 volt batteries and a bulb with a resistance of 4 ohms. Calculate the current.

4. A cell phone is plugged into a 120-volt outlet. If the cell phone adaptor has a resistance of 180 ohms, how much current does it use?

5. A light bulb has a resistance of 120 ohms and a current of 12 A. What is the voltage across the bulb?

6. What happens to the current in a circuit with a fixed resistance if you increase the voltage of circuit?

7. An alarm clock draws .5 A of current when connected to a 120 volt circuit. Calculate its resistance.