Name:

Ohms Law Worksheet

Purpose: To investigate Ohm's Law using 100Ω resistors and a 9V power source by connecting the resistors in series and in parallel.

Procedure:

1) Connect the first 100Ω resistor to the 9V battery.

- What is the voltage across the resistor?
- Calculate the current through the resistor.

Connect the second 100Ω resistor to the first *in series*.
- What is the new effective resistance?
- What is the voltage across each resistor?
- Calculate the current through each resistor.

Repeat for 3 resistors in series.

2) Connect the first 100Ω resistor to the 9V battery. Connect the second 100Ω resistor to the first *in parallel*.

   - What is the new effective resistance of the 2 resistors?
   - What is the voltage across each resistor?
   - Calculate the current through each resistor.

Repeat for 3 resistors in parallel.