Lab 35-1: **Total Resistance**

Purpose: 1. To calculate the total reistance for resistors connected in series and in parallel.
2. To qualitatively determine how the total resistance for a series and parallel circuit compares to the individual resistors.
3. To determine the mathematicl relationship for total resistance in a series circuit.

Equipment: wires, alligator clips, resistors, power supply

Procedure:
This is up to you. You do NOT have to make any graphs - the resistors have constant resistance. Just make a sketch of the circuits you make, record any data and show your calculations.

Diagrams:

Calculations:

Conclusions:
1. How does the total resistance of a series or a parallel circuit compare to the individual resistors in the circuit?

2. If you know the individual resistances, what is the total resistance when they are hooked up in series?

3. If you keep adding resistors in series, what happens to the total resistance?

4. If you keep adding resistors in parallel, what happens to the total resistance?