Name:	Student ID:

Physics 9C Lab Report #4

I. **Light Bulbs**

1. Use the voltmeter to compute the power emitted by all the bulbs combined.

2. Use the ammeter to find the power supplied by the battery, and confirm that it equals the power emitted by the light bulbs.

3. Determine the resistances of each of the two light bulbs (with one having twice the resistance of the other) that emit the same combined power as the previous circuit emitted with 5 light bulbs.

II. **Kirchhoff's Rules**
1. Analyze the network of batteries and resistors given.
   a. Draw a circuit diagram, labeling the components and currents in the various branches.

   b. Use Kirchhoff's rules to compute the unknown resistance, current, and battery emf.

2. Compute the power supplied by each battery, and use the voltmeter to show that it equals the power dissipated by the resistors.