Prelab 15: Ohm’s Law

Name: ________________________________

1. Write the equation and a qualitative statement for Ohm’s Law. (20 pts)

2. What are “ohmic” and “non-ohmic” devices? (20 pts)

3. Complete the following statement: An ideal ammeter has an internal resistance of _________________, while an ideal voltmeter has an internal resistance of _______________. Explain why these are desirable attributes for the respective measuring instruments. (20 pts)

4. If $I$ vs. $V$ is plotted, what value is obtained from the slope? Note that we are investigating the function $I = V/R$ and fitting our data to the slope-intercept equation of a line. (40 pts)