

Unit 11 – Exercise 3

1. In terms of experimental data how is resistance defined and what are its units?
2. Look back at the lab you did to discover Ohm's Law.
 - a) Sketch a graph of voltage vs. current that describes the behavior of a third resistor that has a much smaller resistance than the ones used in the lab activity.
 - b) How would the current through this resistor change as the voltage decreases?
3. While cooking dinner, the school's dining hall oven uses a 220 Volt line and draws 10 A of current when heated to its maximum temperature. What is the resistance of the oven when it is fully heated?
4. Old-fashioned holiday lights were connected in series across a 120 V household line. If the resistance in the string of lights is 12 ohms, what is the current flowing through the string of lights?
5. What is the voltage in a cell phone battery that has 0.4 A of current traveling through an internal resistance of 8.75 ohms?
6. Find the current through a 12 ohm circuit if 24 V is applied.

