U.05b – Electromagnetism, Ohm's Law	V=I*R	NAME:
<b>Ohm's Law Practice Worksheet</b> An alarm clock draws 0.5 A of current when co to a 120 volt circuit. Calculate its resistance.	onnected	If a toaster produces 12 ohms of resistance in a 120- volt circuit, what is the amount of current in the circuit?
A subwoofer needs a household voltage of 11 push a current of 5.5 A through its coil. What resistance of the subwoofer?	0 V to is the	A 12 Volt car battery pushes charge through the headlight circuit resistance of 10 ohms. How much current is passing through the circuit?
A walkman uses a standard 1.5 V battery. How resistance is in the circuit if it uses a current o	w much f 0.01A?	How much voltage would be necessary to generate 10 amps of current in a circuit that has 5 ohms of resistance?
A circuit contains a 1.5 volt battery and a bulb resistance of 3 ohms. Calculate the current.	with a	An electric heater works by passing a current of 100 A though a coiled metal wire, making it red hot. If the resistance of the wire is 1.1 ohms, what voltage must be applied to it?
What current flows through a hair dryer plugg 120 Volt circuit if it has a resistance of 25 ohm	ged into a ns?	A light bulb has a resistance of 5 ohms and a maximum

current of 10 A. How much voltage can be applied before the bulb will break? What happens to the current in a circuit if a 1.5-volt battery is removed and is replaced by a 3-volt battery?

What happens to the current in a circuit if a  $10\Omega$  resistor is removed and replaced by a  $20\Omega$  resistor?

NAME:

Suppose you did a lab with this simple circuit and got the following data. Plot the points of the provided graph.

V=I\*R



What mathematical relationship do you see between voltage and current?

Is the resistance constant?

## Solve for the unknown in each of these circuits

