Name _____

OHM'S LAW WORKSHEET

USEFUL EQUATIONS : Current(I) (in amps) = $\frac{\text{Voltage (V) (in volts)}}{\text{Resistance(R) (in ohms)}}$ $I = \frac{V}{R}$ or $V = I \times R$

1. A walkman uses a standard 1.5 V battery. How much resistance is in the circuit if it uses a current of 0.01 A?

2. What current flows through a hair dryer plugged into a 110 Volt circuit if it has a resistance of 25 ohms?

3. A 12 Volt car battery pushes charge through the headlight circuit resistance of 10 ohms. How much current is passing through the circuit?

4. 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?

5. A subwoofer needs a household voltage of 110 V to push a current of 5.5 A through its coil (circuit).
What is the resistance of the subwoofer?

6. 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?