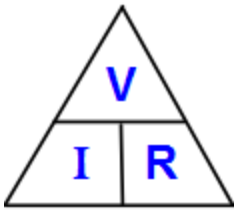
DON'T WRITE ON THIS PAPER

Practice – Ohm's Law: **Voltage = Current x Resistance**

Directions: For each problem show all work on a separate sheet of paper. This means write the givens, formula, plug in, answer, units, and circle your answer. Answers are in bold so you can check your work. *Assume 120 volts for anything plugged into a wall.*



V= I R

1) What voltage is required to make 0.25 A flow against 8 Ω of resistance? **2 v**

2) What current flows in a circuit with a potential difference of 12v and a resistance of 25 Ω? **0.48 A**

3) What is the resistance of a circuit with a voltage of 45v and a current of 5 A? **9 Ω**

4) A 40v circuit has a resistance of 80 Ω. How much current flows through it? **0.5 A**

5) A current of 4 A flows through a circuit with a resistance of 8 Ω. What's the potential difference across the circuit? **32 v**

6) A walkman uses a standard 1.5v battery. How much resistance is in the circuit if it uses 0.01 A of current? **150 Ω**

7) What current goes through a hair dryer ***plugged in at home*** if it has a resistance of 25 Ω? **4.8 A**

8) How much current does a 12 v car battery push through a circuit with a resistance of 10 Ω? **1.2 A**

9) A home stereo uses 120 volts to push 5.5 A to run properly. What is the resistance of the stereo? **21.8 Ω**

10) What is the resistance of a light bulb ***plugged in at home*** that draws 0.5 A of current? **240 Ω**