

Name \_\_\_\_\_

Date \_\_\_\_\_

West Islip Technology Department

Period \_\_\_\_\_

## Introduction to Ohm's Law

- ***Ohm's law*** is a mathematical relationship between current (I), voltage (E), and resistance (R), discovered by ***George Simon Ohm***.
- Ohm's law states that the ***current*** measured in amperes (I) in a circuit is ***equal*** to the applied voltage (E) ***divided*** by the resistance (R).
- Ohm's law is expressed in three formulas below.
  - ***$E = I \times R$*** 
    - This formula is used to determine that applied voltage is equal to the current multiplied by the resistance.
  - ***$I = E / R$*** 
    - This formula is used to determine that current is equal to applied voltage divided by the resistance
  - ***$R = E / I$*** 
    - This formula is used to determine that resistance is equal to the applied voltage divided by the current.
- Ohm's law can be applied easily by using the memory device below.

