

## Lab: Parallel Resistors

Name \_\_\_\_\_ Per \_\_\_\_\_

Purpose: To solve the circuit by measurement & math.

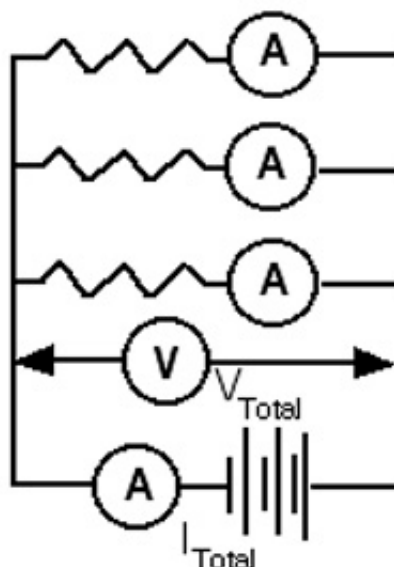
The Voltmeter is always **across** the load.

The Ammeter is always **IN** the circuit, NEVER across the battery!!!

Quick test the meters to be sure they are connected OK.

Disconnect power when not reading meters.

1. Set up the following circuit with 3 different resistors:



2. Measure the V across each R & the V of the battery when the circuit is on.

3. Measure the amps through each R and the total amps.

4. Using the R of each resistor, ( green = 1 ohm, grey = 2 ohms, black = 3 ohms, yellow = 4 ohms, red = 5 ohms) & showing your method, calculate:

a. R total

b. I total

c. V across each R

d. I through each R

e. Power of each R ( $P = VI$  in watts).

f. P total of the circuit.

5. Critique-- Compare your measured values with your calculated values & explain why there is a difference.