Lab #2 Circuit Diagrams, Ammeters, and Series Circuits name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Q1. Build and draw a diagram of a series circuit with 2 batteries, 2 light bulbs below. If you unscrew one of the bulbs what happens to the other one?

Q2. Build and draw a diagram of a parallel circuit with 2 batteries, 2 light bulbs below. If you unscrew on of the bulbs what happens to the other one?

Q3. Which arrangement makes the bulbs brighter, the batteries in parallel or in series?

**Lab #5 How to Use and Ammeter**

Q1. Label the following on the picture of the Ammeter below. Positive and Negative terminals, 0.6 A, 0.35 A, 1A.



Q2. Build and draw a circuit with 2 batteries, 2 light bulbs, a switch and an ammeter. What is the reading on the ammeter with 2 bulbs?

**Lab #6 The Current in a Series Circuit.**

Q1. Build and draw the series circuit with 3 bulbs, 3 batteries, switch an ammeter and volt meter. Label the places where you need to take readings for volts and current.

Q2. Complete the following table.

|  |  |  |
| --- | --- | --- |
| Position of Ammeter/Volt meter | Current/Amperes | Volts |
| 1 |  |  |
| 2 |  |  |
| 3 |  |  |
| 4 |  |  |

Q3. Look at the table. Is the current the same everywhere in the circuit, or does the current increase or decrease? What about the voltage at each light bulb?

Q4. Try adding more bulbs to the circuit. Do the measurements change? Why or why not? Do the measurements correspond with the relative brightness of the bulbs?