

# **LAB 1 REPORT**

**Purpose:** The purpose of this Lab was to introduce tools/ instruments that we may completely see in the physiology lab setting. As well as to get the most accurate measurements for physiology.

## **Procedures:**

### **Experiment 1A:**

- Observed how the black box worked
- Recognizing what is happen to the black box
- Gain understanding of the use of the black box when being applied to the experiment as well as the measurements of human physiological event occurring

### **Experiment 1B:**

- Become comfortable with metric units of measure.
- Learn the unit of each measurement.
- Know what each prefix of the units mean

## **Results:**

### **Linear Measurements**

1. **Length of lecture text:** 270mm converted to 27cm
2. **Width of lecture text:** 220mm converted to 22cm
3. **Depth of lecture text:** 10mm converted to 1cm

### **Volume Measurements**

1. **Volume of water in the beaker:** 98mL converted to .098 liters(l)
2. **Volume of water that was poured into the graduated cylinder:** 93 mL converted to .093 liters.

### **Mass Measurements**

1. **Mass of the iphone:** 0.24933mg converted to 249.33g
2. **Mass of the water poured into the beaker:** 0.08011mg converted to 80.11g

### **Ph Measurements**

1. **Ph of liquid in container A:** 5ph
2. **Ph of liquid in container B:** 7ph
3. **Ph of liquid in container C:** 9ph

### **Time Measurements**

- 1. My pulse rate after 15 seconds:** 1 beat/second  
60 beat/minute
  
- 2. My pulse rate after 60 seconds:** 60 beat/minute  
1 beat/second  
0.001 beats/millisecond

**Discussion:** I appreciated learning the fundamental aspects of materials and tools that we may be seeing in further labs to come, in order to engage in more difficult parts of a lab. It established a foundation for further experiments to come.

**Conclusion:** In conclusion, after completing this lab I've come to understand the basic units used in the metric system. Also with that I learned how to convert the units found in the metric system. In regards to experiment 1b I learned to determine the acidity and alkalinity of a solution through the use of the solution's pH. Lastly, I discovered the function of the "black box", which were the indicators, input transducer, electrodes, amplifiers, and output transducers.