**Purpose**

The purpose of this lab is to observe the operations of the "black box" a instrument that measures the human physiological events, and to become familiar with the basic unit of each measurement.

**Procedure**

1. Make a observation of the black box
2. understand the application of the "black box" and how it measurments of human physiological events
3. become familiar with basic meteric units of measurements and learn the basic unit of each measurements
4. understand the significance of the prefixes of each unit

**Result**

The time measurement made us use the black box showed the waves and length of your pulse rate we were able to determine the rate after 60 seconds.My pulse rate was 86 beats per minute. Converting into 21 beats per second and 698 beats per milliesecond. The linear measurement of a note book also measures the length as 28.1mm converting into 2810cm, the width 21.7mm converting into 2170cm, and the depth 0.2mm converting into 20cm. During the volume measurements we pored some water into the beaker and stated the volume at 1000ml converting into 0.1 liters when pour into a graduated cylinder the state of the volume messured at 90.0ml converted into 0.09 liters. During the mass mesurements the state of the mass weighted at 107.27g it was converted into 107,270mg. When poured into the beaker the mass of the liquid in the beaker was 197.93g when converted it was 197,930mg. Finally, we measured the ph of liquid in containers A,B,and C. In liquid A it was level 4ph, in container B it was level 7ph, and in container C it was level 9ph.

**Discussion**

During the linear measurement I was able to convert the mm to cm by mutiplying by 1000. During the Volume mesurements I was able to convert ml to liters by dividing them by 1000. During my mass mesurementso was able to convert the g to mg by mutiplying by 1000. During the time messurement by dividing the 86 beats per minute the black box gave us by 4 it gave us 21 beat per second.

**Conclusion**

In conclusion, during the lab I was able to see how the black box works and the wave lengths are able to measure the pulse rate. I was able to see how it opertates. I also became familiar was the basic unit of measurements and was able to put them to use during the lab.