

Lab Report 1- Physiological Instrumentation

Purpose: The purpose of this lab is to become familiar with concepts and equipment that we will be using during this course. We will learn to accurately measure using Chemical determinations: indicators and specific ion meters, and physical determinations: Thermometers, stethoscopes, sphygmomanometers, spirometers, pneumographs, and electronic instruments.

Procedure: 1-B: Units of Measure

1. Become familiar with the basic metric units of measure.
2. Learn the basic unit of each measurement.
3. Understand the significance of prefixes of each unit.
4. Complete the worksheet on page 6 of the Lab manual.

My notebook was used for linear measurements. I used my cell phone for the weighted portion. We used a PH testing kit that was provided to us to measure PH balance. I used my cell phone to time my pulse and record my heart beats per second and minute.

Results:

| Linear Measurements: My notebook | mm | cm |
|----------------------------------|--------|---------|
| Length | 280 mm | 28 cm |
| Width | 215 mm | 21.5 cm |
| Depth | 20mm | 2cm |
| | | |

| Volume Measurements | ML | L |
|---------------------|--------|--------|
| Beaker | 100 ml | .1 L |
| Graduated Cylinder | 98 ml | .098 L |

| Mass Measurement: Cell phone | Mg | G |
|------------------------------|------------|---------|
| Cell Phone | 204,600 mg | 204.62g |
| Liquid in beaker | 9,458 mg | 94.58g |

| PH balance: Mystery containers | PH |
|--------------------------------|----|
| Container "A" | 4 |
| Container "B" | 7 |
| Container "C" | 10 |

| Time measurement: | Beats/ second | Beats /minute | Beats per millisecond |
|-------------------------|---------------|---------------|-----------------------|
| Pulse rate after 15 se | 17 | 68 | 68,000 |
| Pulse rate after 60 sec | 17.5 | 70 | 70,000 |

Discussion: I feel confident that the results were recorded as accurately as possible for this lab.

The conversions were simple, but I feel like I did get stuck on some. It was a good review. I think

the one that I had trouble with was the Time measurement section because I have not worked with milliseconds before.

Conclusion:

This lab was a very helpful lesson on how to use physiological instrumentation and how to record accurate results. This lab was not difficult, but it was good practice. I for one, am not too familiar with the metric system, so I need all the practice I can get.