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Lab Report 1

Purpose

The purpose of this lab was to introduce ourselves to different lab tools, learn how to properly measure, and learn how to do unit conversions.

Procedures

1-A: Professor showed how to use the black box and then got pulse measurements of participating students.

1-B: Read different types of measurements (english and metric). Learned how to do unit conversions with both forms of measurement.

Measurement Review/Data Collection:

1. Measure length, width, and depth of notebook.
2. Pour 100mL of water into a beaker and convert to L. Pour water out of the beaker into a graduated cylinder to measure accuracy of the beaker.
3. Take the mass of an empty beaker, pour water into the beaker and retake the mass to find the mass of the water.
4. Drop 5 drops of liquids A, B, and C into their own dish, put a 3cm piece of pH strips into the 3 liquids and measure each pH.
5. Find your pulse, set a timer for 15 seconds and count the beats. Do the same for 60 seconds

Results

1. Length: 28cm 280mm Width: 24cm 240mm Depth: 1cm 100mm
2. Beaker: 100mL 0.1L Graduated Cylinder: 97mL 0.097L

3. Empty Beaker: 82.234g 82,234mg

   Beaker with water: 90.472g 90,472mg

4. Liquid A: 3

   Liquid B: 6

   Liquid C: 12

5. 15 seconds: 14 beats, 0.93 beats/second, 56 beats/min

   60 seconds: 54 beats, 0.9 beats/second, 54 beats/min, 0.0009 beats/ms

Discussion

These results were obtained by using proper measuring technique which was an objective of the lab. We were also able to perform many correct unit conversions going both up and down units. Using our carotid pulse we easily measured beats/min, beats/sec, and was able to convert into beats/ms.

Conclusion

This was one of the easier labs in the course which served as a review for many. Finding linear, volume, mass, pH, and time measurements all helped in introducing lab techniques and tools in order to be successful which was its purpose.