

Measurement Activity

A. Find the volume of one of the density cubes by measuring each side in centimeters and using the formula **Volume = length x width x height**. Be sure to write down all of your raw data, and then show the calculation you completed to find your answer.

Raw Data: Length =

Show Calculation:

Width =

1. Answer: _____ cm³

Height =

B. Find the volume of the same density cube used in question #1 using the fluid displacement method. Be sure to record all of your raw data and show the calculation you completed to find the volume. After completing the calculation answer the question below:

Initial Volume =

Show Calculation:

2. Answer: _____ mL

Final Volume =

3. How the measurements from A and B to compare?

4. Based on this imperfect information how many cm³ equals 1 mL? _____ cm³ = 1 mL

X. Have someone hold a tennis ball with the top at the top of the mural. Then measure the time for it to hit the floor. Do this three times. Find the average time to fall (with its uncertainty). Write a sentence about the quality of your data taking into account your uncertainty.

Raw Data: Time 1 Time 2 Time 3

5. Answer: _____

6. Qualitative remarks on data taking:

Y. Find the mass of 3 different metal blocks. Be sure to **describe** the metals qualitatively and record their mass and recording correct uncertainty.

7. metal 1: _____

8. metal 2: _____

9. metal 3: _____