Name: _____ Group: _____ Date: _____

LAB 12
TECHNIQUE

MEASURING THE DENSITY OF A SOLID

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Goal

Measure the density of a solid.

Materials

- balance (accurate to 0.01 g)
- solid that can be inserted into graduated cylinder (e.g. copper, sulphur, iron)
- small rubber stopper
- 100-mL graduated cylinder
- wash bottle of distilled water

Procedure

1. Weigh and record the mass of the solid.
2. Place the stopper at the bottom of the graduated cylinder.
3. Pour 25 mL of distilled water into the graduated cylinder. Record the volume.
4. Add solid to the graduated cylinder so it is submerged completely in water.
5. Measure and record the volume.
6. Calculate the density of the solid.
7. Clean up and put away materials.

Results

Record your results in the table below. Give the table a title.

Title:

Solid	Mass (g)	Initial volume (mL)	Total volume (mL)

Name: _____ Group: _____ Date: _____ **ANSWER KEY**

Calculations

Write down your calculations in the boxes below.

Calculation of solid volume

Calculation of solid density

Reflecting on the lab technique

1. What is the density of each solid chosen for this lab?

2. Compare the density obtained with data provided in tables of characteristic properties. Are they similar? If not, explain why.