

Laboratory Activity on Calculating Density

$$\text{Density} = \text{Mass (g)} / \text{Volume (mL)}$$

Materials:

- Glass pebbles
- Graduated cylinder
- Balance
- Grid papers
- Water

Procedure:

- Use the balance to determine the mass.
- Use the graduated cylinder to determine the volume.

Fill in the Data Table below:

Data Table			
Density			
Number of Pebbles	Mass (g)	Volume (ml) or (cm ³)	Density= Mass/Volume Unit: g/ml or g/cm ³
3			
5			
6			
8			

Graphing

Graph 1:

Use the Data Table (Density) and graph Mass versus Volume

- Use the Y axis is for Mass (g)
- Use the X axis is for Volume (ml)
- Calculate the slope of the line (rise/run).

Graph 2:

Use the Data Table (Density) and graph Density versus Number of Pebbles

- Use the Y axis is for Density (g/ml)
- Use the X axis is for Number of Pebbles

Observation

1- Compare the values of the density in table 1 and the slope of the line in graph 1. What do you notice?

2- Look at table 1. Did the density change when we increased the number of pebbles?

What is the shape of graph 2? What does this mean?