DENSITY BY STRAIGHT-LINE GRAPHS

Date:_____ Name:_____Lab Day/Time:_____

Object

The objective of this experiment is to determine the density of solid particles by displacement of a liquid and subsequent use of a straight line graph.

Procedure

As in Chem 1094 lab manual, pp. _____.

Observations

Data

Table 1. Part 1 Measurement of volume by displacement of liquid

Run Number	Volume of water and beads in graduated cylinder **Record volume to 0.05mL eg. 6.00mL*	Weight of cylinder, water and beads
0 (start)		
1		
2		
3		
4		
5		

Table 2. Part 1 Measurement of volume by displacement of liquid

Run Number	Volume of water and beads in graduated cylinder **Record volume to 0.05mL eg. 6.00mL*	Weight of cylinder, water and beads
0 (start)		
1		
2		
3		
4		
5		

Calculations

In the tables below, do not round off your calculated densities. However, do keep track of your significant figures by noting how many each calculated density has.

Table 3. Mass versus volume for the first set of beads

Run Number	Total Mass (of beads only)	Total Volume (of beads only)	Density
0			Omit
1			
2			
3			
4			
5			

Graph the results from Table 3 using the graph paper at the end of this handout. Please show which points on the lines you used for your slope calculations, and show your slope calculations there as well.

Sample Calculations

Mass of column

Volume

Density

Average Density

Results

Table. 5 Results

	Minimum Density Obtained	Maximum Density Obtained	Average Density	Density from the graph
First set of beads				
Second set of beads				

Questions

Attach any questions your instructor assigns from the lab manual.