

Name _____

Section # _____

Station # _____

Date _____

1. Mass of object next to the balance: Observed mass Posted mass

2. Mass of 10 mL graduated cylinder:

	Observed mass	Written in mg	Written in kg
Observed mass on milligram balance			
Observed mass on centigram balance			

3. Volume in graduated cylinders:

	Observed volume	Posted volume
10 mL graduated cylinder		
50 mL graduated cylinder		

4. Density (*Attach sample calculations of each type necessary to obtain the results in the table below. These should include the equations used, substituted values, and results. An example of sample calculations is available on the course blog.*)

	Solution	Mass of beaker and solution		Total volume added	Total mass of solution added		Solution density	
		A	B		A	B	A	B
Trial		g	g	mL	g	g	g/mL	g/mL
1	Empty Beaker			—	—	—	—	—
2	Beaker + 5 mL			5.00				
3	Beaker + 10 mL			10.00				
4	Beaker + 15 mL			15.00				
5	Beaker + 20 mL			20.00				
6	Beaker + 25 mL			25.00				

Average Density of Solution A

Average Density of Solution B

Q1. a. How did the calculated value of the density for the 'beaker + 5 mL' compare to the sample for the 'beaker + 25 mL' for Solution A?

b. According to our textbook by Brady, "density is independent of sample size." Does **your data** support this statement? Explain why or why not.

Prepare a plot with *Total Volume* on the X axis and the *Mass of the Beaker with Solution* on the Y axis. Plot two data sets - one for Solution A and one for Solution B. Using a straight edge, draw the best straight lines through each of these data sets. For each line, find the slope and intercept. Submit the plot as part of the lab report. Graph paper is available on Blackboard for this purpose.

Q2. What are the values of the y intercepts for these two lines? What physical quantity do these values represent? Are they similar or different? How well do they compare to your experimental values for this quantity?

Q3. What are the values of the slopes for these two lines? What physical quantity do these values represent? Are they similar or different? How well do they compare to your experimental values for this quantity?