Name: _____ **Name:** _____

Name: _____ **Name:** _____

Data Sheet
Archimedes' Principle Activity

Part I (50pts)

Determine the volume of the ring/tube using Archimedes' Principle and compare your results to the volume of the ring/tube calculated from physical measurements. Do not tie the thread directly to the balance; use the paper clip as a hook. Assume that the density of the water is 1.0 g/cm^3. Neatly show all work and provide all necessary data. If the TA cannot duplicate your results from the data that you provide, your score will be drastically reduced.

Volume of ring/tube via Archimedes' Principle (A): _____

Volume of ring/tube via Physical Measurement (B): _____

Percent Difference = $\frac{|A-B|}{(A+B)/2}$ $x100\%$ = _____

Percent Difference	<=3%	<=5%	<=10%	<=15%	<=20%	>20%
Points	50	45	40	25	10	0

Part II (50pts)

Determine the ***minimum*** number of pennies required to sink your block if the pennies are loaded on the block uniformly. Pennies minted after 1983 have an average mass of 2.49 grams. Assume that the density of the water is 1.0 g/cm^3. Neatly show all work and provide all necessary data. If the TA cannot duplicate your results from the data that you provide, your score will be drastically reduced.

Predicted minimum number of pennies required to sink the block: _____

Actual number of pennies required to sink the block as witnessed by the TA: _____

Absolute value of the difference between the prediction and actual: _____

Difference	0	1	2	3	4	5 or more
Points	50	46	42	38	30	20