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Experimental data sheet 1 : Physical Measurements Lab

A. Mass Measurements

Sample	Filter paper (grams)	Quarter(grams)	50mL beaker(grams)
Before adding sample	0	1.045	1.045
After adding sample	1.045	6.534	31.860
Mass of sample	1.045g	5.489g	30.815g

B. Length Measurements

Lab Manual	Length in cm	Width in cm	Length in mm	Width in mm
	27.75	21.10	277.5mm	211mm
Area				
	Convert to square inches using 2 methods A & B. Explain Area of squared inches = L*W Length = 27.75cm to 10.925in. Width= 21.10cm to 8.307in. A = 10.925in.*8.307in.=90.753in. rounded to 91in.			
Height	91 in		convert in m= 2.3114m	

C. Volume Measurements

Capacity of a large test tube	78ml			
Capacity of a crucible	54ml			
40 mL water in a beaker	volume	36.5ml	Percentage error	40ml-36.5ml/40ml * 100% = 8.75%

D. Temperature Measurements

Boiling water	98^{0}C	
Iced water	(without salt) 1^{0}C	(with 20g salt) - 6^{0}C

Compare and explain
Boiling water: The boiling point of water is 100 ^{0}C at 760mm Hg pressure. Since the daily atmospheric pressure is typically 735-750mm Hg, the boiling pint of water is typically less than 100 ^{0}C.
Iced water (without salt): When a non-volatile solute is dissolved in a liquid, the freezing point of the liquid is lowered, and the boiling point of the liquid is elevated.
    Ex. The reason salt (a non-volatile) is spread on highways after a snowfall.
Iced water (with salt): But the addition of salt lowers the freezing point of water.
    Ex. The ice on the highway will melt, even if the temperature outdoors is lower than the freezing point of water (0 ^{0}C or 32 ^{0}F)		

They all have a different temperature measurement depending on the degree or Fahrenheit it is in as well as was extra component is added to it or not.

E. Density of Magnesium Metal

Volume of water without Mg	15.0ml
Volume of water with Mg	15.9ml
Volume of Mg	0.91ml
Mass of the Mg sample	3.075 g
Density of the Mg sample	$3.379g/m^3$
Show Your Calculations here	Volume = 0.91ml Mass of Mg sample = 3.075g Density = mass / volume Density = 3.075g / 0.91ml = 3.379g/m