

Name _____ Section _____ Group _____
 Date _____

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 | 1.045 | 5.489 | 30.815 |

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 | 585.525cm ² | | 58,552.5mm ² | |
| | Convert to square inches using 2 methods A & B. Explain 230.521in ² Multiply area by .3937 2,306.968 in ² multiply area by .0934 | | | |
| Height | 91 in | | convert in m 2.3114 m | |

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 | 9.58% |

D. Temperature Measurements

| | | | |
|---|--------------------|-----------------------|--|
| Boiling water | 98°C | | |
| Iced water | (without salt) 1°C | (with 20g salt) - 6°C | |
| Compare and explain The ice water with salt is colder because when adding salt, it dissolves in the water that is present which lowers its freezing point below the ice temperature. | | | |

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 |
| Show Your Calculations here | $3.075 / .91 = 3.379\text{g}$ |