

Measuring Activity

name: \_\_\_\_\_ due \_\_\_\_\_

Objective: to practice measuring, using formulas and correct significant figures, and dimensional analysis.

Using the electronic balances, measure the mass of each of the five metals in the data table. Using graduated cylinders, measure the volumes of each as well. Using proper formula, determine the density of each piece of metal. Using table S, determine the actual densities, then do % error for each of your density measurements.

data table	mass in grams	volume in cm <sup>3</sup>	measured density g/cm <sup>3</sup>	actual density g/cm <sup>3</sup>	Your Percent Error for Density
Bismuth Bi					
Zinc Zn					
Lead Pb					
Nickel Ni					

In this box, write the proper formula for density and for % Error. You are expected to show your work on loose leaf paper for each of the calculations above. Correct significant figures count as well.

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Problems to be done on loose leaf as well...

1. convert the mass of the Bi from grams to ounces.
2. convert the mass of Ni from grams to tons with scientific notation.
3. convert the mass of Zn from grams to kilograms.
4. convert the mass of Pb from grams to milligrams.

LOOK at table B, on the reference tables for metric info. Do not go onto the internet for weird conversion factors. 454 g = 1 pound = 16 oz. 2000 p = 1 ton 1000 mg = 1 g 1000g = 1 kg