**CHEMISTRY HOMEWORK SHEET** **NAME**_____

22
Ti
47.87

45
22
Ti

22 protons
22 electrons
23 neutrons

**Solve each problem. Show all work to receive credit. Remember sig figs and units.**

What is the molarity of the solution formed by mixing 0.25 mol of sodium hydroxide (NaOH) with enough water to make 220 mL of solution?

How much calcium bromide ($CaBr_2$), in grams, should be added to water to prepare 0.50 L of solution with a molarity of 0.325 M ?

What is the molality of an alloy containing 0.03 g of iron and 4.75 g of silver?

A gas mixture contains 26.3 g of nitrous oxide ($N_2O$) and 36.2 g of oxygen gas ($O_2$). What is the mole fraction of oxygen gas?

Write the equation for dissolving of aluminum sulfide.

If the solution is 0.084 M aluminum sulfide, what is the concentration of aluminum ions?

What is the concentration of sulfide ions? (Remember, show your work!)

What is the freezing point depression when 42.0 g of ibuprofen ($C_{13}H_{18}O_2$) is dissolved in 975 g of naphthalene? $K_f$ for naphthalene is 7.00 °C/*m.*