**Name: Period: Seat#:**

**Worksheet #1**

* **Show work for ANY math problem.**
* **Include ALL units.**
* **Use SINGLE DIMENSIONAL ANALYSIS line method set ups for ALL conversions.**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. What is the NAME of the conversion factor that allows you to go from moles ↔grams | 1. What units are used for the answer to #1? | | 1. What is the NAME of the conversion factor that allows you to go from moles ↔ molecules? |
| 1. What is the molar mass of potassium? | 1. What is the molar mass of H2S? | | 1. What is the molar mass of ammonium sulfide? |
| 1. How many moles of potassium are in 45 grams? | | 1. How many grams of potassium are in 0.05moles? | |
| 1. How many moles of H2S are in 28 grams? | | 1. How many molecules of H2S are in 0.45 moles? | |
| 1. How many molecules of ammonium sulfide are in 57 grams? | | | |
| 1. How many milligrams are in 5.60x1024 molecules of ammonium sulfide? | | | |
| 1. If the density of acetone (CH3)2CO is 0.7898 g/mL, and you have 65mL of the substance, how many molecules do you have? | | | |