

Name:

Period:

Seat#:

- 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	2) What units are used for the answer to #1?	3) What is the NAME of the conversion factor that allows you to go from moles ↔ molecules?
4) What is the molar mass of potassium?	5) What is the molar mass of H ₂ S?	6) What is the molar mass of ammonium sulfide?
7) How many moles of potassium are in 45 grams?	8) How many grams of potassium are in 0.05 moles?	
9) How many moles of H ₂ S are in 28 grams?	10) How many molecules of H ₂ S are in 0.45 moles?	
11) How many molecules of ammonium sulfide are in 57 grams?		
12) How many milligrams are in 5.60×10^{24} molecules of ammonium sulfide?		
13) If the density of acetone (CH ₃) ₂ CO is 0.7898 g/mL, and you have 65 mL of the substance, how many molecules do you have?		