**Topics – Moles and Equations Make Up Test**

Answer the following questions. Remember to show your work so you can get partial credit if you get the wrong answer!

1. What is the molar mass of Al2O3? (1 pt)
2. How many moles are there in 74 grams of Na2SO3? (3 pt)
3. How much does 9.0 moles of Pb(OH)4 weigh? (3 pt)
4. Which weighs more, 4.5 moles of CuSO3 or 5.5 moles of CaF2? (6 pt)
5. How many things are in a mole? (1 pt)

Balance these equations (1 pt each)

1. \_\_\_\_ Li2SO4 + \_\_\_\_ Ga(CN)3 → \_\_\_\_ Li(CN)2 + \_\_\_\_ Ga2(SO4)3
2. \_\_\_\_ MgF2 + \_\_\_\_ NaNO3 → \_\_\_\_ NaF + \_\_\_\_ Mg(NO3)2
3. \_\_\_\_ Na2CO3 → \_\_\_\_ Na2O + \_\_\_\_ CO2
4. \_\_\_\_ H2 + \_\_\_\_ SnS2 → \_\_\_\_ Sn + \_\_\_\_ H2S
5. \_\_\_\_ H3P + \_\_\_\_ KOH → \_\_\_\_ H2O + \_\_\_\_ K3P
6. \_\_\_\_ TiF4 + \_\_\_\_ H2O → \_\_\_\_ TiO2 + \_\_\_\_ HF
7. \_\_\_\_ C3H8O+ \_\_\_\_ O2 → \_\_\_\_ H2O + \_\_\_\_ CO2
8. The equation \_\_\_ Na + \_\_\_ Pb(OH)2 → \_\_\_ NaOH + \_\_\_ Sn cannot be balanced. Explain why. (3 pt)
9. The law of conservation of mass says that in a chemical reaction, the mass of the reagents must not be the same as the mass of the products. (1 pt)

**True** / **False** (circle one)