**Topics – Moles and Equations 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 Na2O? (1 pt)
2. How many moles are there in 7.4 grams of Na2SO4? (3 pt)
3. How much does 9.0 moles of Pb(OH)2 weigh? (3 pt)
4. Which weighs more, 4.5 moles of CuSO4 or 5.5 moles of Ca(OH)2? (6 pt)
5. How many things are in a mole? (1 pt)

Balance these equations (1 pt each)

1. \_\_\_\_ CuSO4 + \_\_\_\_ Ga(OH)3 → \_\_\_\_ Cu(OH)2 + \_\_\_\_ Ga2(SO4)3
2. \_\_\_\_ MgF2 + \_\_\_\_ NaNO3 → \_\_\_\_ Mg(NO3)2 + \_\_\_\_ NaF
3. \_\_\_\_ NaHCO3 → \_\_\_\_ NaOH + \_\_\_\_ CO2
4. \_\_\_\_ SnS2 + \_\_\_\_ H2 → \_\_\_\_ Sn + \_\_\_\_ H2S
5. \_\_\_\_ H3P+ \_\_\_\_ KOH → \_\_\_\_ H2O + \_\_\_\_ K3P
6. \_\_\_\_ TiF2 + \_\_\_\_ H2O → \_\_\_\_ TiO + \_\_\_\_ HF
7. \_\_\_\_ C3H8 + \_\_\_\_ 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 be the same as the mass of the products. (1 pt)

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