**Chemistry Worksheet: Limiting Reactant Worksheet #1**

1. Consider the following reaction: 2 Al + 6 HBr → 2 AlBr3 + 3 H2
   1. When 3.22 moles of Al reacts with 4.96 moles of HBr, how many moles of  H2 are formed?
   2. What is the limiting reactant?
   3. For the reactant in excess, how many moles are left over at the end of the  reaction?
2. Consider the following reaction: 3 Si + 2 N2 → Si3N4
   1. When 21.44 moles of Si reacts with 17.62 moles of N2, how many moles  of Si3N4 are formed?
   2. What is the limiting reactant?
   3. For the reactant in excess, how many moles are left over at the end of the  reaction?
3. Consider the following reaction: 2 CuCl2 + 4 KI → 2 CuI + 4 KCl + I2
   1. When 0.56 grams of CuCl2 reacts with 0.64 grams of KI, how many grams  of I2 are formed?
   2. What is the limiting reactant?
   3. For the reactant in excess, how many grams are left over at the end of the  reaction?
4. Consider the following reaction: 4 FeS2 + 11 O2 → 2 Fe2O3 + 8 SO2
   1. When 26.62 grams of FeS2 reacts with 5.44 grams of O2, how many grams  of SO2 are formed?
   2. What is the limiting reactant?
   3. For the reactant in excess, how many grams are left over at the end of the reaction?