**Stoichiometry and Reaction Prediction Review**

Use the equation below to answer the following questions:

\_\_\_\_ CaO + \_\_\_\_ K2S → \_\_\_ CaS + \_\_\_ K2O

1. What type of chemical reaction is this? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Given your knowledge of this type of reaction, would the reaction above actually occur? Explain why or why not.
3. Let’s assume the reaction above actually takes place. If I were to perform this reaction with 25 grams of CaO and 34 grams of K2S, how many grams of calcium sulfide would I form? What is the limiting reagent in this reaction?

Predict the products of the following reactions (and indicate if no reaction occurs):

1. AgNO3 + Mg →
2. C2H4 + O2 →
3. SrBr2 + Li3PO4 →
4. Na + S8 →