Chemistry 201
Practice Quiz
Stoichiometry

On an actual quiz each of these problems would be worth 5 points for a total of 20 points.

1. For the reaction: $3C_{(s)} + 2SO_{2(g)} \rightarrow CS_{2(s)} + 2CO_{2(g)}$, how many liters of carbon dioxide are formed at STP from the reaction of 6.00 grams of carbon with excess sulfur dioxide?

2. For the reaction: $2Al_{(s)} + 3Br_{2(l)} \rightarrow 2AlBr_{3(s)}$, if 4.0 grams of aluminum are combined with 2.0 grams of bromine:

    a. How many grams of aluminum bromide are produced?

    b. Which reactant is the limiting reactant?

3. For the reaction: $CO_{(g)} + 2H_{2(g)} \rightarrow CH_3OH_{(l)}$

    8.00mL of methanol (CH_3OH d=0.7918g/mL) are produced from 14.0 grams of carbon monoxide reacting with excess hydrogen gas. What is the percent yield for this reaction?

4. For the reaction: $2KClO_{3(s)} \rightarrow 2KCl_{(s)} + 3O_{2(g)}$

    How many grams of potassium chlorate would need to be decomposed to produce 6.00 L of oxygen gas at STP?