LT 7.2 Percent Yield Practice

1. Calculate the percent yields in each of the following cases:
   a. Theoretical yield 50.0 g of product; actual yield 41.9 g

   b. Theoretical yield is 290 kg of product; actual yield is 270 kg

   c. Theoretical yield is 64 kg of product; actual yield is 324 g

2. $HgO + Cl_2$ -----→ $HgCl_2 + Cl_2O$
What is the percent yield, if the quantity of reactants is sufficient to produce 0.86 g of Cl_2O but only 0.71 g is obtained?
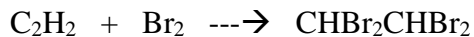
3. Using the following reaction:
   $$C_2H_2 + Br_2 ---→ CHBr_2CHBr_2$$
   If 72.0 g of C_2H_2 reacts with 23.5 grams of excess bromine and 729 g of the product is recovered, what is the percent yield of the reaction?

4. Using the following equation: $As_2O_3 + C ---→ CO_2 + As$.
   If 8.87 g of As_2O_3 is used in the reaction and 5.33 g of As is produced, what is the percent yield?

5. Using the following reaction: $CS_2 + Cl_2 ---→ CCl_4 + S_2Cl_2$
   If 4.3 moles of CS_2 were to react with 5.6 moles Cl_2, what is the limiting reactant? The above reaction produced 211 g CCl_4, what is the percent yield?