Review for Final #2

1)   When hydrogen gas reacts with C_2H_2, C_2H_6 is formed. If I perform this reaction with 120 grams of hydrogen gas and 650 grams of C_2H_2, how many grams of C_2H_6 will be formed?

2)   What is the limiting reagent in #1? How much of the excess reagent will be left over?

3)   If I actually succeed in making 450 grams of C_2H_6, what is my percent yield? Is this a reasonable answer?

4) C_2H_6 is a gas at standard temperature and pressure. What is the volume of the C_2H_6 that you formed in problem 1? R = 0.08206 L atm/mol K.

5)   If I increase the temperature of the C_2H_6 formed in this reaction to 650^0 C, what will the new volume of this gas be?

6)   Draw the Lewis structure for C_2H_6 and indicate which intermolecular force is most important between its molecules.