STOICHIOMETRY: VOLUME-VOLUME PROBLEMS

Name_

1. $N_2 + 3H_2 \rightarrow 2NH_3$

What volume of hydrogen is necessary to react with five liters of nitrogen to produce ammonia? (Assume constant temperature and pressure,)

2. What volume of ammonia is produced in the reaction in Problem 1?

3. $C_3H_8 + 5O_2 \rightarrow 3CO_2 + 4H_2O$

If 20 liters of oxygen are consumed in the above reaction, how many liters of carbon dioxide are produced?

4. $2H_2O \rightarrow 2H_2 + O_2$

If 30 mL of hydrogen are produced in the above reaction, how many milliliters of oxygen are produced?

5. $2CO + O_2 \rightarrow 2CO_2$

How many liters of carbon dioxide are produced if 75 liters of carbon monoxide are burned in oxygen? How many liters of oxygen are necessary?