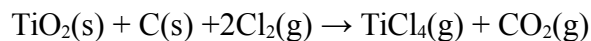


**CHM 110  
Gas Laws Practice Set**

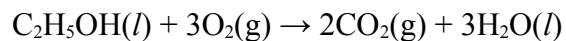
**Solve the following problems Write the answer in the answer blank, and show work in the space provided.**

1) What volume of CO<sub>2</sub> gas would (given enough carbon and chlorine) be produced at 504 °C and 1.10 atm by the reaction of 45.0 g of TiO<sub>2</sub> in the following reaction?



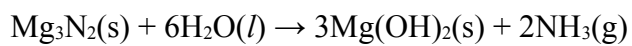
Answer: \_\_\_\_\_ L CO<sub>2</sub>

2) C<sub>2</sub>H<sub>5</sub>OH burns in air to form CO<sub>2</sub> and H<sub>2</sub>O. What volume of carbon dioxide gas (at 25.0°C and 1.07 atm) can be produced when 55.0 grams of C<sub>2</sub>H<sub>5</sub>OH burns in sufficient oxygen?



Answer: \_\_\_\_\_ L CO<sub>2</sub>

3) What mass of magnesium nitride is required to produce 475 L of ammonia gas at STP via the following reaction??



Answer: \_\_\_\_\_ g  $\text{Mg}_3\text{N}_2$

4) A 4.50 L flask contains pure nitrogen gas ( $\text{N}_2$ ) at 0.979 atm and 30.0 °C. What is the mass of nitrogen gas inside the flask?

Answer: \_\_\_\_\_ g  $\text{N}_2$