Name: Date: Period:

Practice: Gas Law Stoichiometry - Part 2

1. Carbon monoxide reacts with nitrogen monoxide to produce nitrogen gas and carbon dioxide.

2 CO + 2 NO 🡪 N2 + 2 CO2

If 2.96 moles NO is reacted completely with carbon monoxide at 5.5 atm and 65 ºC, how many liters of nitrogen gas will be produced?

1. Ammonia is formed from the reaction of hydrogen and nitrogen.

3 H2 + N2 🡪 2 NH3

How many liters of H2 are required to produce 14.7 moles NH3 at -20oC and 2000 mmHg?

1. When subjected to an electric current, water decomposes to hydrogen and oxygen gas.

2 H2O 🡪 2 H2 + O2

If 214.0 L of water are decomposed, how many grams of hydrogen gas are produced at 45°C and 196.7 kPa?

1. How many liters of carbon dioxide are formed from the reaction of 10.0 moles of hydrochloric acid (HCl) at 250°C and 4.33 atm?

HCl + NaHCO3 🡪 NaCl + H2O + CO2