

Revised August 2011



HONORS WORKSHEET 6b: Gas Laws II

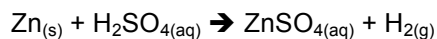


1. If 5.0 g of nitrogen gas and 5.0 g of chlorine gas are injected in to a 2.0 L vessel at a temperature of 65 °C, what will the partial pressure of each gas be? What will the total pressure in the container be? (3)

2. Which gas law allows the simple calculation of the total pressure in question #1? (1)

In questions 3 and 4, assume 1.000 mol of any gas occupies 22.40 L at standard temperature and pressure (s.t.p).

3. What volume of hydrogen gas is obtained when 23.00 g of zinc metal reacts with an excess of dilute sulfuric acid at s.t.p? (2)



4. What volume of oxygen, at s.t.p, is required to burn exactly 11.60 L of methane ($\text{CH}_{4(g)}$), according to the reaction below? (2)

