Name: _____

Date: _____

Chemistry
Gases WS

I. *Answer the following questions about the characteristics of gases:*

1. A gas in a metal cylinder is cooled and as a result, its pressure decreases. Use the kinetic theory to explain why this happens.

2. Consider two containers of equal volume. Both containers contain a gas at equal temperature, but the first container's gas has five times the pressure of the second container's gas. What explains the difference between the properties of these two containers?

3. What are three differences between an ideal gas and a real gas?

4. What is the purpose of the gas constant, R?

5. On the back of this worksheet, draw and label five small graphs relating the following properties of gases. Label each relationship as "direct" or "inverse", and assume any other variables are constant:

   a. Pressure (P) vs. Volume (V)
   b. Volume (V) vs. Temperature (T)
   c. Pressure (P) vs. Temperature (T)
   d. Pressure (P) vs. # of moles (n)
   e. Volume (V) vs. # of moles (n)