

**Gas Laws Assignment #2**  
**Variables and their Relationships; Pressure**

Name \_\_\_\_\_

Write a well-thought-out response to each of the following questions. Your response should be a clear, meaningful explanation and should stand alone, without the reader's needing to look at the question to see what you were talking about. Show all work as conversion factors for each problem.

1. How many atmospheres are equivalent to 720.mm Hg?
2. What is the equivalent in mm Hg for 1.75 atmospheres?
3. What is the equivalent in KPa of a pressure of 2.25 atm?
4. What Kelvin temperature is equal to 25°C?
5. What volume will 0.500 moles of any gas occupy at standard temperature and pressure?
6. To measure changes in volume with pressure, which two variables must be held constant?
7. To measure changes in volume with respect to temperature, which two variables must be held constant?
8. Describe the conditions under which a real gas best behaves like an ideal gas.