

College Prep Chemistry of the Earth System

Assignment 7E

30 Points

Introduction to Gases

*Answer the following questions completely. No one word answer.*

1. Define the following terms regarding the gas state of matter
  - a. Gas (*shape and size*)
  - b. Volume
  - c. Pressure
  - d. Temperature (*Kelvin*)
2. For each gas law (*Boyles, Charles, Gay-Lussac, Combined*) 1. *write the equation*, 2. *explain the relationships between the variables, (direct/indirect)*, and 3. *What is held constant in the equation*.
3. Sketch the graphs for Boyle's Law, Charles' Law and Gay-Lussac's Law. Why is there a big difference between Boyle's and the other two laws?
4. Define Dalton's Law of Partial Pressure. How is the *air* in the atmosphere a good examples of Dalton's Law
5. What is an ideal gas? Give an example.