Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date\_\_\_\_\_\_\_\_\_\_\_\_Period\_\_\_\_\_\_\_\_\_\_

**Gas Laws**

|  |  |  |
| --- | --- | --- |
| **Name of Law** | **Explanation** | **Math** |
| Boyle’s Law |  |  |
| Charles’ Law |  |  |
| Guy-Lussac’s Law |  |  |
| The Combined Gas Law |  |  |
| Avogadro’s Hypothesis |  |  |
| The Ideal Gas Law |  |  |
| Dalton’s Law of Partial Pressure |  |  |
| Graham’s Law of Diffusion |  |  |

**Kinetic-Molecular Theory:**

1. A gas consists of very small particles, each of which has \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. The distances separating gas particles are relatively large. The volume of the gas particles themselves is assumed to be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_because it is negligible compared with the total volume in which the gas is contained.
3. Gas particles are in constant, rapid,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
4. Collisions of gas particles with each other or with the walls of the container are perfectly\_\_\_\_\_\_\_\_\_\_\_\_\_, which means\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

1. The average kinetic energy of gas particles depends only on the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the gas. (The higher the temp, the higher the KE.)
2. Gas particles exert no \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_on each other. (The attractive and repulsive forces between gas particles are so weak they are assumed to be zero.)

An \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is one that perfectly fits all the assumptions of the Kinetic-Molecular theory.

Under normal conditions, most gases behave ideally. What is normal?

Real gas – does not behave completely as an ideal gas.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ result in greater deviation from ideal behavior.