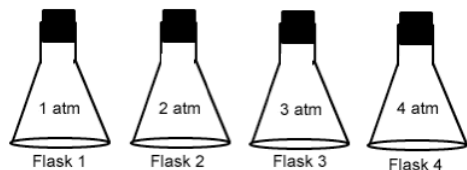


The Kinetic-Molecular Theory

1. Each of these flasks are the same size and at the same temperature. Which flask contains the most molecules?



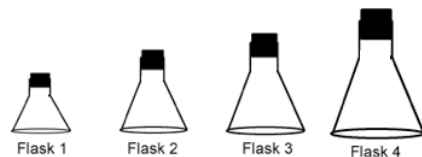
Flask # _____

How did you determine which flask? _____

2. Which of the following changes to a system WILL NOT result in an increase in pressure? Circle your choice.

1. increasing the volume of the container c. raising the temperature
2. decreasing the volume of the container d. adding more gas molecules

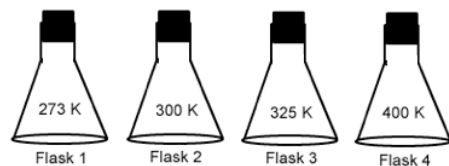
3. Each of these flasks contains the same number of gas particles. Which flask will have the lowest pressure?



Flask # _____

How did you determine which flask? _____

4. Each of these flasks contains the same number of gas particles. Which flask will have the lowest pressure?

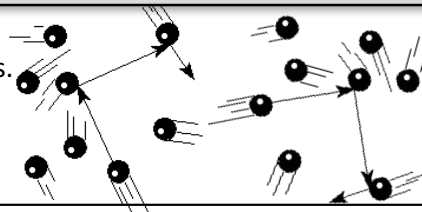


Flask # _____

How did you determine which flask? _____

The Kinetic-Molecular Theory & Gases

- A- Gas particles are in constant, rapid, straight-line motion.
B- Collisions between gas particles and the walls of the container are elastic collisions.
C- The temperature of a gas is proportional to its average kinetic energy.
D- There are no forces of attraction between gas particles.
E- The volume of individual gas particles is nearly zero.



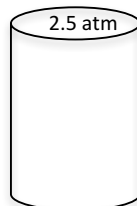
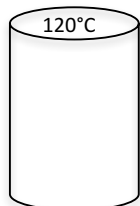
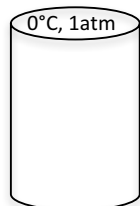
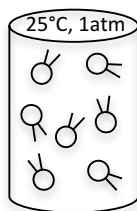
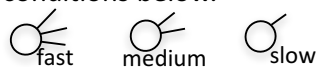
For #5-#7: Give the letter or letters of the five statements from the Kinetic-Molecular Theory of Gases, above, that support the three basic characteristics of gases: Expansion, Compressibility, and Diffusion.

5. Expansion: _____

6. Compressibility: _____

7. Diffusion: _____

8. The container to the right contains 7 gas particles. Represent these same particles under the change of conditions below.



9. Which of the five statements above do not apply to "real" gases? (give letters) _____

Why do these statements not apply to "real" gases?

10. Under what conditions do "real" gases deviate the most from the ideal gas? Explain why.