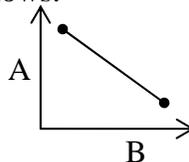
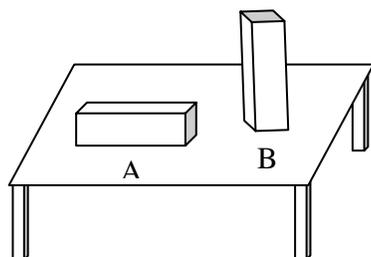


What Do You Know About Gases? Answer Key

- (T) 1. The volume of a gas expands when heated.
- (F) 2. At constant temperature and pressure the volume of one mole of oxygen is greater than the volume of one mole of helium.
- (T) 3. At 25 °C, the average kinetic energy of oxygen and helium are equal.
- (F) 4. When a balloon is compressed, the molecules get smaller.
- (T) 5. The density of liquid water is greater than the density of gaseous water.
- (T) 6. A gas molecule travels in straight lines until it collides with another gas molecule or the walls of the container.
- (F) 7. Substances that mix completely with each other are homogenized.
- (F) 8. The volume of a tire on a loaded truck decreases because air is pushed out.
- (T) 9. If two variables, A and B, exhibit an inverse relationship, the graph of the data will appear as follows:



- (F) 10. If you wish to examine how volume changes with temperature in an experiment while holding pressure constant, temperature will be the responding variable.
- (F) 11. Brick A exerts more pressure on the table than brick B.



- (F) 12. If the pressure of a gas is increased from 50 kPa to 100 kPa, and the temperature rises from 100 °C to 200 °C, the volume will not change.
- (F) 13. Four litres of oxygen combine with 8.00 L of nitrogen to form 6.00 L of mixed gases.