
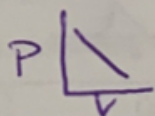
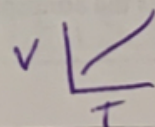


<p>___ 1. I can state the 4 parts of the Kinetic Molecular Theory.</p>	<p>The five parts of the Kinetic Molecular Theory are:</p> <p>a. Continuous straight line motion</p> <p>b. When gas molecules collide they completely transfer energy</p> <p>c. No attraction B/W molecules</p> <p>d. No volume</p>
<p>___ 2. I can define an ideal gas.</p>	<p><u>Definition:</u> ideal gas: A gas that follows </p>
<p>___ 3 I can state the conditions of pressure and temperature under which a gas will act "ideally".</p>	<p>A gas will act most "ideally" under the conditions of <u>Low</u> pressure and <u>High</u> temperature. Hot + not a lot of pressure</p>
<p>___ 4. I can state the two elements that act ideally most of the time.</p>	<p>The two elements that act ideally most of the time are <u>H₂</u> & <u>He</u>.</p>
<p>___ 5. I can explain how pressure is created by a gas.</p>	<p>What causes gas molecules to create pressure? Hitting inside of container</p>
<p>___ 6. I can state the relationship between pressure and volume for gases (assuming constant temperature).</p>	<p>At constant temperature, as the pressure on a gas increases, the volume <u>decreases</u></p> 
<p>___ 7. I can state the relationship between temperature and volume for gases (assuming constant pressure).</p>	<p>At constant pressure, as the temperature on a gas increases, the volume <u>increases</u>.</p> 

<p>___ 8. I can state the relationship between temperature and pressure for gases (assuming constant volume).</p>	<p>I n a fixed container (AKA "has constant volume), as the temperature on a gas increases, the pressure <u>increases</u>. $P \propto T$</p>
<p>___ 9. I can state Avogadro's Hypothesis.</p>	<p>Avogadro's Hypothesis says <u>same # of molecules in the same volume at the same conditions.</u></p>
<p>___ 10. I can remember to convert °C to K when using the Combined Gas Law to determine changes in V, P, or T of a gas.</p>	<p>A gas originally occupies 2.3L at 56°C and 101.3 kPa. What will its volume be at 100°C and 105.7 kPa?</p> $\frac{P_1 V_1}{T_1} = \frac{P_2 V_2}{T_2} \quad \frac{(101.3)(2.3)}{329} = \frac{V_2(105.7)}{373}$ $V_2 = 2.5L$
<p>___ 11. I can define boiling point and vapor pressure.</p>	<p>Definition: Boiling Point: The point at which external pressure = vapor pressure Vapor Pressure: The force of a vapor on a closed container</p>
<p>___ 12. I can state the conditions of temperature and pressure that are used for "normal" boiling points.</p> <p>STP</p>	<p>The normal (STP) boiling point of a substance occurs at temperature of <u>0</u> °C / <u>273</u> K and a pressure of <u>1</u> atm / <u>101.3</u> kPa. This can be found on Reference Table <u>A</u>.</p>
<p>___ 13. I can state the relationship between atmospheric pressure and boiling point.</p>	<p>As the atmospheric pressure increases, the boiling point <u>↑</u>.</p>

___ 14. I can determine the vapor pressure of ethanol, ethanoic acid, propane, or water at a given temperature.

What is the vapor pressure of ethanol at 56°C?

37

What is the boiling point of propanone at STP?

55°C

___ 15. I can state the relationship between the strength of IMF and vapor pressure.

As the strength of IMF increases, vapor pressure decreases.

In terms of IMF, will have the lowest vapor pressure, H₂O or H₂?

H₂O B/c it has the strongest IMF

___ 16. I can use Dalton's Law to determine a partial pressure

Gas A and gas B (both unreactive) are allowed to mix. The total pressure is found to be 3.50 atm. If gas B was measured initially at 1.25 atm, what is the partial pressure of gas A?

- a. 4.75 atm
- b. -2.25 atm
- c. 2.25 atm
- d. 1.25 atm

$$P_T = P_A + P_B + P_C$$

___ 17. I can convert between moles and liters at STP

$$2 \text{ mols} = 44.8 \text{ L} \quad 44.8 \text{ L} = 2 \text{ moles}$$

$$\text{_____ mols} = 56.6 \text{ L} \quad 11.2 \text{ L} = .5 \text{ moles}$$

___ 18. I can determine what gas molecules will diffuse or effuse fastest based on GFM.

The H₂O molecule will diffuse the fastest.

Determine which of the following will diffuse/effuse fastest.

- H₂O
- C₂H₆
- O₂

it is the smallest