Name…… Unit 9 I Can Statements KMT Period……..

____1. I can state the 4 parts of the Kinetic Molecular Theory.	The five parts of the Kinetic Molecular Theory are: a. b. c. d.
____2. I can define an ideal gas.	**<u>Definition:</u>** ideal gas:
____3 I can state the conditions of pressure and temperature under which a gas will act "ideally".	A gas will act most "ideally" under the conditions of _____ pressure and _____ temperature.
____4. I can state the two elements that act ideally most of the time.	The two elements that act ideally most of the time are _____ & _____.
____5. I can explain how pressure is created by a gas.	What causes gas molecules to create pressure?
____6. I can state the relationship between pressure and volume for gases (assuming constant temperature).	At constant temperature, as the pressure on a gas increases, the volume _____.
____7. I can state the relationship between temperature and volume for gases (assuming constant pressure).	At constant pressure, as the temperature on a gas increases, the volume _____.

____8. I can state the relationship between temperature and pressure for gases (assuming constant volume).	I n a fixed container (AKA "has constant volume), as the temperature on a gas increases, the pressure_____.
____9. I can state Avogadro's Hypothesis.	Avogadro's Hypothesis says_____ _____
____10. I can remember to convert ^{O}C to K when using the Combined Gas Law to determine changes in V, P, or T of a gas.	A gas originally occupies 2.3L at 56^{O}C and 101.3 kPa. What will its volume be at 100^{O}C and 105.7 kPa?
____11. I can define boiling point and vapor pressure.	**<u>Definition:</u>** **Boiling Point:** **Vapor Pressure:**
____12. I can state the conditions of temperature and pressure that are used for "normal" boiling points.	The normal (STP) boiling point of a substance occurs at temperature of _____^{0}C/_____K and a pressure of _____atm/_____kPa. This can be found on Reference Table _____.
____13. I can state the relationship between atmospheric pressure and boiling point.	As the atmospheric pressure increases, the boiling point _____.

____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 $56^{o}C$? What is the boiling point of propanone at STP?
____15. I can state the relationship between the strength of IMF and vapor pressure.	As the strength of IMF _____, vapor pressure _____. In terms of IMF, will have the lowest vapor pressure, H_2O or H_2?
___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
_____17. I can convert between moles and liters at STP	_____mols = 44.8 L _____L = 2 moles _____mols = 56.6L _____L = .5 moles
___18. I can determine what gas molecules will diffuse or effuse fastest based on GFM.	The _____ molecule will diffuse the fastest. **Determine which of the following will diffuse/effuse fastest.** H_2O C_2H_8 O_2