Name:_____ Period:_____ Date:_____

Notes on 11.1 – 11.3

1. Define: Gay-Lussac's Law of Combining Volumes of Gases.

2. Define: Avogadro's Law.

3. How did Avogadro's Law account for the holes in Dalton's theory?

4. Avogadro also found that the gas volume is directly proportional to what?

5. Using a chemical formula for a gas reaction, you can determine a simple whole number ratio between what three measurements? Use the example below to help you illustrate this.

$2H_2$ (g)	+	O_2 (g)	→	$2H_2O$ (g)
___ molecules		___ molecule		___ molecules
___ mol		___ mol		___ mol
___ volumes		___ volumes		___ volumes

6. What is standard molar volume of gas (define)?

7. What value is used as the standard molar volume of gas?

Notes on 11.2 – Ideal Gas Law

1. What is the Ideal Gas Law? Write the equation

2. How is the Ideal Gas Constant calculated?

3. There are several variations of the Ideal Gas Law Constant, which value of the constant will you be using in this book (and in this class)?

Notes on 11.3 – Stoichiometry of Gases

4. How can you find volume ratio between gases from a chemical equation?

5. Write all the possible volume ratios for the following chemical equation:

$$CaCO_3 \rightarrow CaO + CO_2$$

6. Under what conditions can volumes be compared this way?