STOICHIOMETRY: MOLES TO MOLES NOTES

**Vocabulary:**

*Fill in the blank:*

*Stoichiometry* **-** Greek, “stoiechion” (\_\_\_\_\_\_\_\_) and “metron” (to \_\_\_\_\_\_\_\_\_\_). The calculation of the amount of substances in a chemical reaction from the balanced equation.

*Balance the equation and then label the reactants, products, and coefficients in the following chemical equation:*

*Conversion factor***-** a numeric \_\_\_\_\_\_\_\_\_ of equal measurements used to convert quantities between different \_\_\_\_\_\_\_\_\_.

*Moles***-** the \_\_\_\_\_\_\_\_\_\_\_\_\_ of an element or compound containing \_\_\_\_\_\_\_\_\_\_\_\_\_\_(Avagadro’s number) particles (ex. atoms, ions, etc.) of that element/compound.

*Molar(Molecular) Mass***-** the \_\_\_\_\_\_\_\_\_\_\_(in\_\_\_\_\_\_\_\_\_) of a single mole of particles (atoms, ions, or molecules) of an element/compound.

# Steps:

1. \_\_\_\_\_\_\_\_\_\_\_\_\_ the equation
2. Determine the \_\_\_\_\_\_\_\_\_\_ to \_\_\_\_\_\_\_\_\_\_\_ ratio between A and B
3. \_\_\_\_\_\_\_\_ across, \_\_\_\_\_\_\_\_\_\_ bottom

General Form for mole to mole conversions:

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**ketzbook’s Stoichiometry Tricks Video:**

Nitrogen reacts with Hydrogen to produce a component of fertilizer called ammonia, NH3. How many moles of Nitrogen, N2, do you need to make 10 moles of ammonia,NH3?

1. Balance the equation:

\_\_\_N2 +\_\_\_\_ H2 ->\_\_\_ NH3

1. Determine the mole-to-mole ratio:\_\_\_\_\_\_\_\_\_\_
2. \_\_\_ moles NH3 require\_\_\_\_ moles N2
3. Using the given information to solve the problem:

|  |  |  *=*  |
| --- | --- | --- |
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