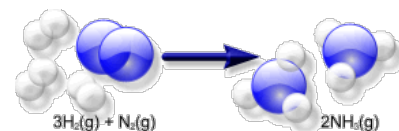


Follow along as you view the video, “Stoichiometry Calculations I: Mole-Mole Conversions” on edpuzzle.com and fill in the blanks as you go. (Also available at <http://youtu.be/LHDXJgqV1Nk>)

- Mole-Mole Calculations
 - Mole-Mole calculations are _____
 - Start in units of _____ from a chemical equation and end in units of _____ from the same chemical equation.
 - Substances can be _____
 - Use the ratio of the _____ to _____ from the **balanced chemical equation** as a _____.
 - How to use ratios to perform calculations
 - _____
 - Select mole ratio with _____
 - Multiply _____ by ratio to get _____
 - The Haber Reaction



- For the reaction $\text{N}_2(\text{g}) + 3\text{H}_2(\text{g}) \rightarrow 2\text{NH}_3(\text{g})$, determine the number of moles of NH_3 produced by reacting 12 moles of H_2 with sufficient N_2 .
 - We specify “sufficient N_2 ” to indicate that _____—we’ll see more in limiting and excess reactants
 - Given (G) = _____; Wanted (W) = _____
 - Ratio: $\frac{W}{G}$:

Moles NH_3 =

- Cancel mol H_2 in equation
- Substance and units of answer match wanted

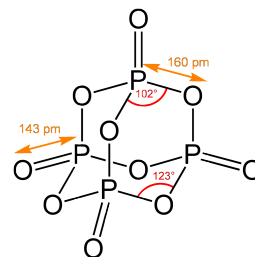
○ You Try It

- For the reaction $4 \text{P (s)} + 5 \text{O}_2 \text{ (g)} \rightarrow \text{P}_4\text{O}_{10} \text{ (s)}$, determine the number of moles of O_2 required to completely react with 6.35 moles of P.

- $G =$ _____ ; $W =$ _____

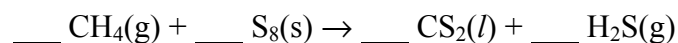
- Ratio:

Moles $\text{O}_2 =$



○ Another Problem

- The reaction between methane and sulfur produces carbon disulfide and dihydrogen sulfide:



- Balance the equation
- How many moles of CS_2 are produced when 3.49 moles S_8 is used?

- How many moles of H_2S are produced?

See you in class!