



High School Science Virtual Learning

**Chemistry**

**Stoichiometry Continued**

April 13, 2020



# High School Chemistry

## Lesson: 4/13/20

### **Objective/Learning Target:**

Students are able to convert between moles of products and reactants.

## Let's Get Started:

1. If 23.4 glopsnicks = 78.0 glippers &  
35.6 flipplebobs = 65.4 glippers  
then how many flipplebobs are in 34 glopsnicks?
2. Complete and balance the following reaction:  
Iron reacts with sulfuric acid ( $\text{H}_2\text{SO}_4$ ) to form iron(III) sulfate  
and hydrogen gas.

## Let's Get Started: Answer Key

### 1. Question 1- Answer

$$\begin{array}{r}
 \cancel{34 \text{ glopsnicks}} \times \frac{78.0 \text{ glippers}}{\cancel{23.4 \text{ glopsnicks}}} \times \frac{\cancel{35.6 \text{ flipplebobs}}}{65.4 \text{ glippers}} = 62 \text{ flipplebobs}
 \end{array}$$

### 2. Question 2 - Answer





# Lesson Activity:

## Directions:

1. Answer the following questions on the handout, as you watch the following video.

## Links:

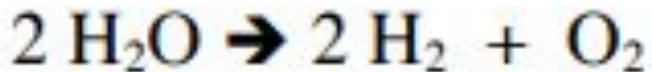
- Video: [Tyler DeWitt - Mole Ratio Problems](#)
- Handout: [Tyler DeWitt Stoichiometry Video Worksheet](#)



# Practice

*Complete the following questions using the information you learned during the lesson activity.*

## Questions:



1. How many moles of  $\text{O}_2$  are produced when 1.26 moles of  $\text{H}_2\text{O}$  is reacted?
2. How many moles of  $\text{H}_2\text{O}$  are need to produce 55.7 moles of  $\text{H}_2$ ?
3. If enough  $\text{H}_2\text{O}$  is reacted to produce 3.40 moles of  $\text{H}_2$ , then how many moles of  $\text{O}_2$  must have been made?

Once you have completed the practice questions check with the **answer** key.

1. How many moles of  $O_2$  are produced when 1.26 moles of  $H_2O$  is reacted?

$$\frac{1.26 \text{ mol } H_2O}{2 \text{ mol } H_2O} \left| \frac{1 \text{ mol } O_2}{2 \text{ mol } H_2O} \right| = \underline{.630} \text{ mol } O_2$$

2. How many moles of  $H_2O$  are need to produce 55.7 moles of  $H_2$ ?

$$\frac{55.7 \text{ mol } H_2}{2 \text{ mol } H_2} \left| \frac{2 \text{ mol } H_2O}{2 \text{ mol } H_2} \right| = \underline{55.7} \text{ mol } H_2O$$

3. If enough  $H_2O$  is reacted to produce 3.40 moles of  $H_2$ , then how many moles of  $O_2$  must have been made?

$$\frac{3.40 \text{ mol } H_2}{2 \text{ mol } H_2} \left| \frac{1 \text{ mol } O_2}{2 \text{ mol } H_2} \right| = \underline{1.70} \text{ mol } O_2$$



## More Practice:

Follow the links below to do more practice.

1. [Mole to Mole Calculations](#) (Please only complete page 1)
2. [Mole to Mole Stoichiometry](#)

## Additional Practice:

Click on the link below to watch more how to solve more practice problems. Suggestion - copy each problem, then solve before the presenter finished.

- [Organic Chemistry Tutor - Stoichiometry](#)