CHEMISTRY MATTERS
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NOTE-TAKING GUIDE
Unit 6, SEGMENT B

Name:

Date:

Main Ideas, Key Points, Questions:

After watching the video segment, write down key points, main ideas and big questions.

Objective(s):

- ***To relate Avogadro's number to both mass and volume of a substance.***
- ***To use dimensional analysis to solve mole conversions.***

Notes:

During the video segment, use words, phrases or drawings to take notes.

Summary:

After watching the video segment, write at least three sentences explaining what you learned.
You can ask yourself: "If I was going to explain this to someone else, what would I say?"

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QUESTIONS TO CONSIDER:
Unit 6, SEGMENT B

Name:

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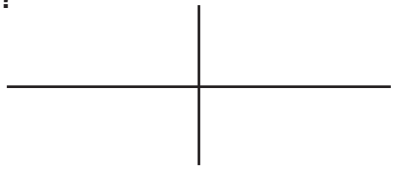
After watching the video and performing any associated labs and/or experiments, you should be able to answer the following:

1. **"Avogadro's Number" was named in honor of Amedeo Avogadro. What is Avogadro's number?**

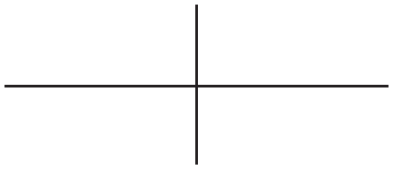
2. **How many atoms are found in one mole of atoms?**

3. **Show the dimensional analysis conversion chart for this question: How many molecules of water are there in 0.360 moles of water?**



= _____ **molecules of water**

4. **Show the dimensional analysis conversion chart for this question: How many moles of Mg are in 1.25 x 10^{23} Mg atoms?**



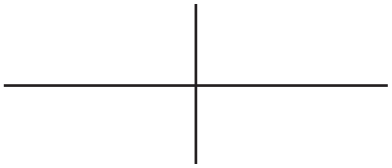
= _____ **mol Mg**

5. **How many grams of carbon are found in 1 mole of carbon atoms?**

6. **Define molar mass.**

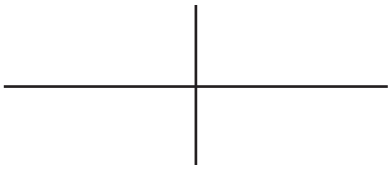
At this point in the lesson, the teacher should pass around the classroom some containers filled with one mole of some well-known substances (iron, aluminum, zinc, salt, water, etc.)

7. **Show the dimensional analysis conversion chart for this question: How many grams are in 9.45 moles of N_2O_3?**



= _____ **grams N_2O_3**

8. **Show the dimensional analysis conversion chart for this question: How many moles are in 92.2 g Fe_2O_3?**



= _____ **mol Fe_2O_3**

Make sure you complete the Weighing Moles Lab before you continue to the next video. This activity will clarify the dimensional analysis used in mole conversions.