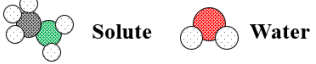
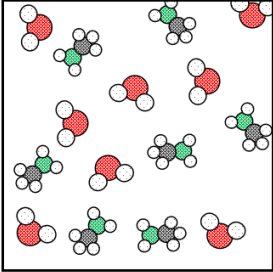
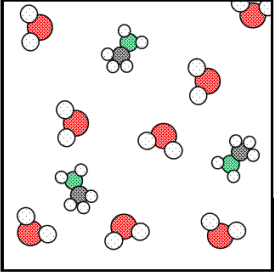
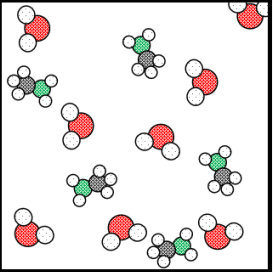


Faculty Submitting: Allison Kelly

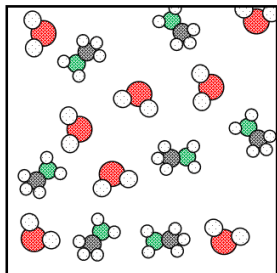
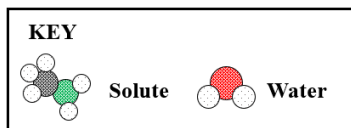
Specify here whether “Pre” or “End” of Unit and the Unit #: Pre Unit 3

<i>LOs: Perform calculations using Avogadro’s number and use the concept of the mole to convert between atomic/molecular and macroscopic quantities</i> <i>Determine the empirical and molecular formulas from elemental analysis data</i> <i>Calculate molarity for solutions and molarity of diluted solutions</i>	
Unit 3_ Question 1	Canvas Question Type: Multiple Question
	Which is the correct way to find the formula mass of $C_6H_{14}O_2$
	Correct Answer: $6 \times 12.01 + 14 \times 1.008 + 2 \times 15.999$ Wrong Answers: $12.01 + 1.008 + 15.999$ $3 \times 12.01 + 7 \times 1.008 + 15.999$ $(6 + 12.01) + (14 + 1.008) + (2 + 15.999)$
Read More	https://openstax.org/books/chemistry-2e/pages/3-1-formula-mass-and-the-mole-concept
Unit 3_ Question 2	Canvas Question Type: Fill in Multiple blanks
	The [molar] mass of any substance is [numerically] equivalent to its atomic or formula weight in [amu]
Read More	https://openstax.org/books/chemistry-2e/pages/3-1-formula-mass-and-the-mole-concept
Unit 3_ Question 3	Canvas Question Type: Multiple Answers
	Which of the following statements are true? A mole of carbon atoms....
	Correct Answers: Contains 6.02×10^{23} carbon atoms Weighs 12.01 grams Contains the same number of atoms as 1.008 grams of H atoms Wrong Answers: Weighs 1.000 grams Contains 6.02×10^{23} molecules

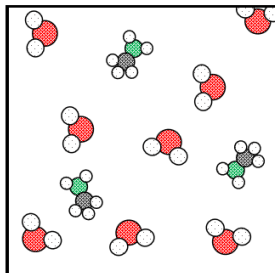
Read More	https://openstax.org/books/chemistry-2e/pages/3-1-formula-mass-and-the-mole-concept
Unit 3_ Question 4	Canvas Question Type: Fill in multiple blanks
	The term “molecular” mass cannot be used for [ionic] compounds because they do not consist of discrete [molecules], instead the term [formula] mass is used.
Read More	https://openstax.org/books/chemistry-2e/pages/3-1-formula-mass-and-the-mole-concept
Unit 3_ Question 5	Canvas Question Type: Matching
	Match the steps for finding an empirical formula. Step 1: Determine the moles of each element in the compound from the mass of each element by dividing by the molar mass of the element Step 2: Divide each elements’ moles by the smallest molar amount Step 3: Multiple by an integer to achieve a whole number (if needed)
Read More	https://openstax.org/books/chemistry-2e/pages/3-2-determining-empirical-and-molecular-formulas
Unit 3_ Question 6	Canvas Question Type: True/False
	It is possible for the molecular formula of a compound to be the same as the empirical formula of a compound Answer: True
Read More	https://openstax.org/books/chemistry-2e/pages/3-2-determining-empirical-and-molecular-formulas
Unit 3_ Question 7	Canvas Question Type: Multiple Choice

	<p>Which of the following solutions would have the highest molarity?</p> <div data-bbox="391 237 735 359" style="border: 1px solid black; padding: 5px;"> <p>KEY</p>  <p>Solute Water</p> </div> <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 10px;"> <div style="text-align: center;">  <p>I</p> </div> <div style="text-align: center;">  <p>II</p> </div> <div style="text-align: center;">  <p>III</p> </div> </div> <p>ALT Text: The image shows three boxes with a molecular depiction of a solution. The box labelled I has eight water molecules and seven solute molecules. The box labeled II has eight water molecules and three solute molecules. The box labelled III has eight water molecules and five solute molecules.</p>
	<p>Correct Answer: Solution I</p> <p>Wrong Answers: Solution II Solution III Not enough information</p>
<p>Read More</p>	<p>https://openstax.org/books/chemistry-2e/pages/3-3-molarity</p>
<p>Unit 3_ Question 8</p>	<p>Canvas Question Type: Multiple Choice</p>

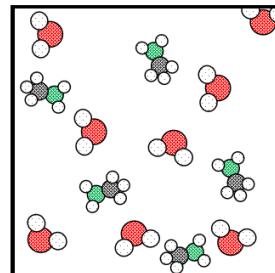
Which of the following solutions is most dilute?



I



II



III

ALT Text: The image shows three boxes with a molecular depiction of a solution. The box labelled I has eight water molecules and seven solute molecules. The box labelled II has eight water molecules and three solute molecules. The box labelled III has eight water molecules and five solute molecules.

Correct Answer: Solution II

Wrong Answers:

Solution I

Solution III

Not enough information

Read More

<https://openstax.org/books/chemistry-2e/pages/3-3-molarity>