

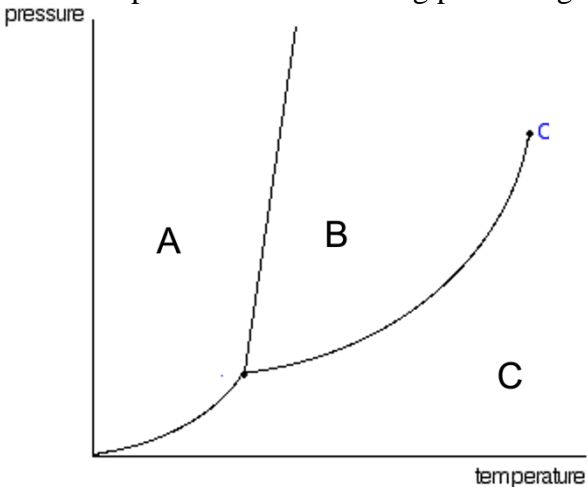
Faculty Submitting: Siobhan Toal

Specify here whether “Pre” or “End” of Unit and the Unit #: Pre Unit 10

<i>LOs:</i> Describe the steps and energetics of forming a solution Describe and calculate the impact of colligative properties (freezing point depression, boiling point elevation, osmotic pressure, vapor pressure) of solutions Calculate the partial pressure of solution components and the vapor pressure of a solution using Raoult’s Law <i>Readings: Ch 11</i>	
Unit 10_ Question 1	Canvas Question Type: Fill in Multiple Blanks GROUP
a	Question Text: In the dissolution process, expansion of solute particles [blank1] energy in order to overcome [blank2] interactions. Blank 1 Correct Answer Requires Wrongs Answer Releases Blank 2 Correct Answer Solute-solute attraction Wrong Answer Solute-solute repulsion Solute-solvent attraction Solute-solvent repulsion Solvent-solvent attraction
b	Question Text: In the dissolution process, expansion of solvent particles [blank1] energy in order to overcome [blank2] interactions. Blank 1 Correct Answer Requires Wrongs Answer Releases

	<p>Blank 2 Correct Answer Solvent-solvent attraction Wrong Answer Solute-solute attraction Solute-solute repulsion Solute-solvent attraction Solute-solvent repulsion</p>
Read More	https://openstax.org/books/chemistry-2e/pages/11-1-the-dissolution-process
Unit 10_ Question 2	Canvas Question Type: Multiple Choice
	<p>Question Text: Which of the following is <u>not</u> a colligative property?</p> <p>Correct Answer: Solubility</p> <p>Wrong Answers freezing point depression boiling point elevation vapor pressure lowering Osmotic Pressure</p>
Read More	https://openstax.org/books/chemistry-2e/pages/11-4-colligative-properties
Unit 10_ Question 3	Canvas Question Type: Multiple Choice
	<p>Question Text: The phrase "like dissolves like" refers to the fact that:</p> <p>Correct Answer: solvents more readily dissolve solutes of similar structure and polarity</p> <p>Wrong Answer: solvents can only dissolve solutes of similar molar mass polar solvents dissolve nonpolar solutes and vice versa</p>
Read More	https://openstax.org/books/chemistry-2e/pages/11-3-solubility
Unit 10_ Question 4	Canvas Question Type: Matching
	Question Text:

	<p>Unsaturated Solution – non-equilibrium solution in which solute concentration is below solubility</p> <p>Saturated Solution – equilibrium solution where solute concentration is at solubility</p> <p>Supersaturated Solution – nonequilibrium solution above solubility</p>
Read More	<p>https://openstax.org/books/chemistry-2e/pages/11-1-the-dissolution-process</p> <p>https://openstax.org/books/chemistry-2e/pages/11-3-solubility</p>
Unit 10_ Question 5	Canvas Question Type: Fill in the blank
	<p>Question Text: The vapor pressure above miscible solution is [blank] that of a pure solvent.</p> <p>Correct Answer: ></p> <p>Wrong Answers: < = Not enough information given</p>
Read More	<p>https://openstax.org/books/chemistry-2e/pages/10-3-phase-transitions</p> <p>https://openstax.org/books/chemistry-2e/pages/11-4-colligative-properties</p>
Unit 10_ Question 6	Canvas Question Type: Multiple Answers/Checkbox
	<p>Question Text: According to Raoult’s Law the partial pressure that volatile substance “A” exerts above a solution depends directly on:</p> <p>Correct Answer: Mole fraction of substance A in solution (X_A) Moles of A in solution Total moles of all volatile substances in solution Vapor Pressure of pure substance A (P_A)</p> <p>Wrong Answers: none</p>
Read More	https://openstax.org/books/chemistry-2e/pages/11-4-colligative-properties
Unit 10_ Question 7	Canvas Question Type: Multiple blanks
	<p>Question Text: The freezing point of a dilute solution compared to that of the pure solvent [blank1], while the boiling point of a silute solution compared to that of the pure solvent [blank2]</p>

	Blank 1: depresses (lowers) Blank 2: elevates (raises)
Read More	https://openstax.org/books/chemistry-2e/pages/11-4-colligative-properties
Unit 10_ Question 7	Canvas Question Type: Matching
	Question Text: Label the phases in the following phase diagram:  <p>The diagram is a phase diagram with pressure on the vertical axis and temperature on the horizontal axis. It shows three regions: A is the solid phase, B is the liquid phase, and C is the gas phase. The boundaries between these phases are shown as curves. The solid-liquid boundary is a steep line with a slight negative slope. The liquid-gas boundary is a curve that rises as temperature increases. The solid-gas boundary is a curve that rises as temperature increases. The regions are labeled A, B, and C.</p>
	A – solid B- liquid C-gas
Read More	https://openstax.org/books/chemistry-2e/pages/11-4-colligative-properties