SI: Chapters 13 and 14 worksheet

1. **Match the following terms with their definition:**

1. **A homogeneous mixture of 2 or more substances**	a. **solute**
2. **What does the dissolving**	b. **Aqueous solution**
3. **What is being dissolved**	c. **Saturated solution**
4. **When the solvent is water**	d. **solvent**
5. **The amount of the compound that dissolves in a certain amount of solvent at a certain temperature.**	e. **solubility**
6. **Holds the max amount of solute under solution conditions**	f. **solution**
7. **Solution containing a soulute that disassociates into ions.**	g. **Henry's law**
8. **The solubility of a gas in a liquid increases with increasing pressure**	h. **Electrolyte solution**

Term	**Definition**	**Visual/ example**
Molarity		

Molality		
Dilution		
Osmosis		
Osmotic Pressure		
Mass Percent		
Colligative Properties		

2. What is the mass percent of a solution prepared by dissolving 3000 mg of NaOH in 50 grams of water?

3. What is the molarity of a 20 L solution that contains 45 grams of dissolved solute?

4. What is the molality of a solution prepared when 80.0ml of a 5.0 M KCl solution is diluted to a volume of 0.600 L?

5. What is the freezing point of a solution prepared by adding 265.0g of copper (II) Sulfate Pentahydrate to 5.00 L of water?

6. Calculate the boiling point of a 5.32 M solution of sucrose in water

Chapter 14:

Term	Definition	Visual
Acid		
Base		
Conjugate Base		

Conjugate Acid		
Amphiprotic		
Neutralization		
Titration		

Term	Definition	Image
Equivalence Point		
Indicator		
End point		
Strong Acid/ Base		

Weak acid. Base		
Acidic solution		
Basic Solution		
Buffer Solution		

Illustrate a ph scale below:

<0----------7----------14>

Math:

1. **Calculate the poh of an acidic solution with an H3o+ of 1.456X10^-15**

2. **Determine the ph of an acidic solution with an oh concentration of 0.2314X 10^-3.**