Properties of Solutions

Use section 15.2 and your textbook glossary to complete this worksheet

Part 1: Vocabulary

- A **solution** is a _____ mixture
- The **solvent** is the _____ medium in a solution. The _____ particles are the **solute**. Solvents and solutes may be _____, _____ or _____.
- An **electrolyte** is a compound that _____ an _____ _____ when it is in an aqueous solution or in the _____ state.
- A **nonelectrolyte** is a compound that does not _____ an _____ _____ in either aqueous solution or the _____ state.
- **Solubility** refers to the amount of a substance that _____ in a given quantity of _____ at specified conditions of _____ and _____ to produce a _____ solution.
- **Solvation** is the process by which the _____ and _____ ions of an ionic solid become surrounded by _____ molecules.

Part 2: Solubility

- Substances that dissolve most readily in water include _____ compounds and _____ covalent molecules.
- Nonpolar covalent molecules, such as _____ and compounds found in _____, _____ and _____ do not dissolve in water. However, _____ and _____ will dissolve in gasoline.
- In some ionic compounds, the attraction among the ions in the crystals are _____ than the attractions exerted by _____. These compounds are therefore nearly _____. _____ (_____) and _____ (_____) are examples of nearly _____ ionic compounds.
- As a rule, _____ solvents such as water dissolve _____ compounds and _____ compounds; _____ solvents, such as gasoline dissolve _____ compounds.
- This relationship can be summed up in the expression " _____ dissolves _____."

Circle the factors below that would help to dissolve a solid in a liquid		Circle the factors below that would help to dissolve a gas in a liquid	
Increase temperature of the solution	Stirring/Agitation	Increase temperature of the solution	Stirring/Agitation
Decrease temperature the solution	Increase pressure	Decrease temperature the solution	Increase pressure
Break up the solid	Decrease pressure		Decrease pressure