



## Honors Chem - Solutions Review Worksheet

1. What factors determine whether one substance will dissolve in another (solubility)?
2. What three factors influence the rate of dissolution?
3. What are the two components of a solution? Define each component.
4. What is boiling point elevation? How does this occur? What is freezing point depression? How does this occur?
5. How does one create a supersaturated solution? An unsaturated solution?
6. On what are colligative properties dependent? What are the colligative properties discussed in Solutions Unit?
7. As the temperature increases, what happens to the solubility of a solid? Of a gas?
8. Explain the meaning of the phrase "like dissolves like"?
9. Ethanol dissolves in water, but carbon tetrachloride does not. What can you conclude about ethanol and carbon tetrachloride?
10. How are freezing point depression and boiling point elevation similar?
11. Can you compare and contrast the properties of solutions, suspensions, and colloids?
12. What is solubility?
13. What are the steps of solution formation? What does it mean if the solution has an exothermic heat of solution?
14. How does temperature effect the solubility of a liquid? Of a gas?
15. What is a supersaturated solution? What happens when a crystal of the solute is added to the supersaturated solution?
16. Can you solve Molarity, molality, percent composition by mass problems?
17. Can you determine the recipe to follow if making a dilute solution from a stock solution?
18. Can you successfully complete the solution stoichiometry problems seen in class?
19. Can you accurately apply the colligative property equations (to find a solution's boiling and freezing point, a solution's molality, a solute's molar mass)?