

Name Key Date \_\_\_\_\_

**Solutions Review Sheet**  
**Quantitative Chemistry**

*For the problems, be sure to show your work, and use significant figures!*

1. Define the following in your own words:

- |               |                   |
|---------------|-------------------|
| a. Solution – | e. Saturated –    |
| b. Solute –   | f. Unsaturated –  |
| c. Solvent –  | g. Concentrated – |
| d. Soluble –  | h. Dilute –       |

2. Complete the chart below related to the compounds and their solubility in water.

Compound	Type of Bond (Ionic, PC, NPC)	Is it soluble in water?
NaCl		
C <sub>8</sub> H <sub>18</sub>		
CH <sub>2</sub> O		

3. Complete the table with the following equations. Know these!

Percent by Mass	Percent by Volume
Molarity	Dilution

4. Drugstores sell 3.00% hydrogen peroxide solutions. If you purchase a bottle with a mass of 250. grams, how many grams of hydrogen peroxide are in the bottle?

$$\text{Mass } \% = \frac{\text{mass solute}}{\text{mass sol'n}} \times 100\% \rightarrow A = \frac{B}{C} \times 100 \rightarrow B = \frac{AC}{100}$$

$$\text{mass solute} = \frac{(\text{mass } \%)(\text{mass sol'n})}{100\%} = \frac{(3.00\%)(250.\text{g})}{100\%} = 7.50\% \text{ H}_2\text{O}_2$$