

## Quiz 9.1 – Solutions and Solubility

Name: \_\_\_\_\_

**Question 1**How many moles are in 5.12 g of  $\text{CuSO}_4 \cdot 5 \text{H}_2\text{O}$ **Question 2**

Water ( $\text{H}_2\text{O}$ ) and diethyl ether ( $\text{CH}_3-\text{CH}_2-\text{O}-\text{CH}_2-\text{CH}_3$ ) are both solvents used in a chemistry laboratory. Which of these solvents would you expect to dissolve wax ( $\text{C}_{45}\text{H}_{92}$ )?

**Question 3**

Find the molar concentration if 2.5 g of NaCl are dissolved to make 15.00 ml of solution

**Question 4**

Find the mass/mass % if 0.750 g of naphthalene are dissolved in 5.00 g of dichloromethane solvent

**Question 5**

Solvation of sodium hydroxide is an exothermic process. If you want to increase the solubility of sodium hydroxide, should you raise or lower the temperature?

*O Me! O Life!*

By Walt Whitman

Oh me! Oh life! of the questions of these recurring,  
Of the endless trains of the faithless, of cities fill'd with the foolish,  
Of myself forever reproaching myself, (for who more foolish than I, and who more faithless?)  
Of eyes that vainly crave the light, of the objects mean, of the struggle ever renew'd,  
Of the poor results of all, of the plodding and sordid crowds I see around me,  
Of the empty and useless years of the rest, with the rest me intertwined,  
The question, O me! so sad, recurring—What good amid these, O me, O life?

Answer.

That you are here—that life exists and identity,  
That the powerful play goes on, and you may contribute a verse.