

Part 6- Solutions Homework.

1. In a solution the substance that is being dissolved is called the solvent

- a) Solvent
- b) Emulsifier
- c) Solute
- d) Filtrate

2. What is one property of a suspension that is different from that of a solution or a colloid?

- a) If left to rest, the particles of a suspension will settle out.
- b) The particles of a suspension reflect light. *so do colloids (milk)*
- c) A suspension is always clear ~~X~~
- d) Suspensions are colorless ~~X~~

3. A solution that cannot hold any more solute at room temperature is \_\_\_\_

- a) A weak solution
- b) A concentrated solution
- c) A saturated solution
- d) A supersaturated solution

4. An example of a solution is \_\_\_\_

- a) Sugar and water
- b) Sand and water
- c) Milk
- d) Whipped Cream

5. The best method to separate the solute from the solvent in a solution would be \_\_\_\_

- a) Distillation
- b) Filtration
- c) Sedimentation
- d) all of the above will work

6 How would you make 250. mL of 0.100% NaOH solution from a 35% stock solution?

7 How many grams of NaOH are in 250. mL of a 3.50% solution?

#6  $C_1 V_1 = C_2 V_2$   $V_1 = \frac{C_2 V_2}{C_1} = \frac{(0.100\%)(250\text{mL})}{(35\%)} = .714\text{ mL}$

I would add water to .714 mL of the stock solution until the volume reached 250. mL

#7  $250. \text{g}^{\text{soln}} \times \frac{3.5\% \text{ NaOH}}{100\% \text{ soln}} = 8.75\text{g}$