Name_____Period_____Assignment #_____

Making solutions

Notes: Draw a picture for each step and include a **reason** for each step

1) How do you make a 1M solution?

   Step 1: Determine the molar mass of the solute

   Step 2: Add about half the volume of distilled water you need and dissolve solute

   Step 3: Add distilled water to the desired volume

2) How do you make a 5% solution?

   Step 1: You can assume that 1g of the solution has a volume of 1mL. Mass 5g of the solute.

   Step 2: Add about half the volume you need and dissolve solute

   Step 3: Add distilled water to the desired volume

3) How many mL of a 1000mL 0.5M sucrose solution are necessary to make 500mL of 0.25M sucrose? **Show your work**

Dilution – used to create a dilute solution from a concentrated stock solution

$C_iV_i = C_fV_f$

i = initial (starting)

C = concentration of solute

f = final (desired)

V = volume of solution

4) You have 0.8M stock solution of sucrose. How many mL of stock solution are needed to make 30mL of 0.5M sucrose?

5) You need 250mL of 5% NaCl. How many mL of 20% NaCl do you need and how many mL of distilled water do you need?

6) You have 750mL of 9% NaCl. How many mL of 5% NaCl could you make from it?