Chemistry I Name _____

Date _____ _ Per ____

Worksheet # C61 Diluting Solutions

1. Warm-up: solve the following:

a. 250. mL = _____ L	d. .345L = _____ mL	g. .00068 L = _____ mL
b. 18.8 mL = _____ L	e. 2.99 mL = _____ L	h. 10.0 L = _____ mL
c. .99 mL = _____ L	f. .99L = _____ mL	i. 2.75 L = _____ mL

2. What is the formula for dilutions? _____

   a. Why does it work? _____

   _____

3. When mixing a very concentrated acid with water, what's the rule? _____

   _____

4. If you have 1.00 L of a 12.0 M solution of HCl and you add it to 2.00 L of water, what's the molarity of the new solution?

5. If you have 25.0 mL of a 15.8 M HNO_3 solution and you add in 35.0 mL of water, what's the new molarity?

6. How much water must you add to 400. mL of an 18.0 M solution of H_2SO_4 to make it a 6.00 M solution?

7. How much water must you add to 77.9 L of a 6.00 M CH_3COOH solution to make it a 2.50 M solution?

8. How many mL of 8.50 M H_3PO_4 are needed to prepare 125 mL of a 3.75 M solution?