Chemistry 101   Name:_____

Solutions Worksheet

1) Calculate the molarity of the following solutions given that:

   a) 1.0 grams of potassium fluoride is dissolved to make 0.10 mL of solution.

   b) 952 grams of ammonium carbonate are dissolved to make 1750 mL of solution.

2) How many grams of magnesium cyanide are needed to make 275 mL of a 0.075 M solution?

3) Find the volume (in mL) of a 0.75 M potassium hydroxide solution that contains 39 grams of solute.

4) If water is added to 175 mL of a 0.45 M KOH solution until the volume is 250 mL, what will the molarity of the diluted solution be?

5) If 575 mL of a 3.50 M KCl solution is allowed to evaporate until the volume of the solution is 275 mL, what will the molarity of the solution be?

6) How much water would need to be added to 750 mL of a 2.8 M HCl solution to make a 1.0 M solution?

7) What are the total concentration of ions in a solution that contians 35.0 g of aluminum chloride in 255 mL of solution.

8) It takes 83 mL of a 0.45 M NaOH solution to neutralize 235 mL of an HCl solution. What is the concentration of the HCl solution?

9) It takes 38 mL of 0.75 M NaOH solution to completely neutralize 155 mL of a sulfuric acid solution (H_2SO_4). What is the concentration of the acid solution?

10) It takes 125 mL of a 0.30 M HNO_3 solution to neutralize 285 mL of $Ca(OH)_2$ solution. What is the concentration of the base solution?