**Dilutions Practice Sheet**

1. If you dilute 275 mL of a 6.1 M solution of LiCl to 2.0 L, determine the new concentration of the solution.

2. You need to make 10.0 L of 12 M KNO3. What molarity would the potassium nitrate solution need to be if you were to use only 6.0 L of it?

3. How many milliliters of 2.5 M copper(II) sulfate solution must be added to 100 mL of water to achieve a 0.30 M copper(II) sulfate solution?

4. What volume of 1.25 M HCl can be made by mixing 7.50 M HCl with 500.0 mL of 4.45 M HCl?

5. A 50.0 mL volume of 2.6 M Fe(NO3)3 is mixed with 50.0 mL of 0.16 M Fe(NO3)3 solution. Calculate the molar concentration of the final solution.

6. To 3.00 L of 0.56 M HCl, you add 2.00 L of a second HCl solution of an unknown concentration. The resulting solution is 1.3 M. Assuming the volumes are additive, calculate the molarity of the second HCl solution.

7. 1.00 L of a solution is prepared by dissolving 52.0 g of NaF in it. If I took 200 mL of that solution and diluted it to 600 mL, determine the molarity of the resulting solution.