

- **Percent By Mass Example #1:**
 - 5.45 g of NaCl is added to 100 ml of water. What is % by mass of NaCl?

- **Molarity Example #2:**
 - What is the molarity of a solution that has a total volume of 0.150 L and contains 12.0 g of NaCl?

- **Solution Preparation Example #3:**
 - Describe how you would prepare 500. ml of a 1.50 M solution of Sodium Chloride.

Concentration of Solutions

- The _____ of a solution is a measure of the amount of solute in a given amount of solvent or solution which can be expressed by...
 - **Percent by mass**
 - Expresses concentration as a percent of the _____ of the solute of the total mass of the _____
 - Remember the density of water is 1.00 g / 1.00 ml
 - **Molarity**
 - Expresses concentration as a number of _____ per liter of _____
 - Molarity (M) = moles of solute / Liters of Solution

- In order to prepare a solution of a very specific concentration...
 - To prepare a solution, first measure out the _____ of the solute that you need to make the solution.
 - Then, place the solute in a _____ flask (a very precise flask that measures only a single volume) that measures to the desired volume and add a small amount of water to dissolve the solute.
 - Finally, add water to the final volume of the solution and mix.