**Standard Solutions**

**A “Standard Solutions” are solutions that have a Molarity of 1.0.**

**Molarity = moles / liter**

**In order to make standard solution you would need to get the molar mass of the compound and dissolve that amount of the chemical in 1 liter of water.**

**Example:**

 **1 M NaCl: 58.43 in 1 liter of water.**

**How could you make the same molarity with half the volume of water?**

 **Divide the molar mass and the volume of water by 2.**

**58.43/2 = 29.2 g in 500 ml of water.**

**If you know the Molarity (M)of a solution and the volume of the solution you can convert to moles.**

**Example:**

 **If you have 15 ml of a 3.5 M (Molar) HCl, how many moles do you have?**