Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Assignment: Concentrations

1. What mass of Ca2+(aq) has been ingested into your body when you drink 5.0L of bottled water labeled as having 98 ppm Ca?

1. A saturated solution of sodium nitrate at 10oC contains 80.g of NaNO3(s) in 100g of water. What is the mass percent of the NaNO3(s) in the saturated solution?
2. Calculate the volume of solution that would be prepared when 2.0g of CaBr2(s) is dissolved to make a 0.205mol/L solution.
3. Some municipalities add sodium fluoride, NaF(s), to drinking water to help protect children’s teeth.
   1. If a municipality wants to maintain the concentration of sodium fluoride at 2.9x10-5mol/L, what mass of sodium fluoride is dissolved in 5.0L of solution?
   2. Express the concentration of sodium fluoride at 2.9x10-5mol/L in ppm.
4. Sodium hydroxide solution, NaOH(aq), with a concentration of 10% m/m is used to break down wood fiber to make paper.
   1. What mass of solute is needed to make 250mL of 10% m/m solution?
   2. What is the molar concentration of the solution?