Unit 6– Chapter 11 AP Chem Conclusion Questions **Name _____**

Period _____

1) A solution is made by dissolving 25 g NaCl in enough water to make 1.0 liter of solution. Assume that the density of the solution is 1.0 g/cm^3. Calculate the a) mass percent, b) molarity, c) molality, and d) mole fraction of NaCl.

2) A solution is prepared by dissolving 50.0 grams of cesium chloride (CsCl) in 50.0 grams of water. The density of the solution is 1.58 g/mL. Calculate the a) mass percent, b) molarity, c) molality, and d) mole fraction of the cesium chloride.

3) In a solution of acetone and ethanol, the mole fraction of the acetone is 0.40. What is the concentration of acetone as a mass percent?

4) A 1.37 *M* solution of citric acid ($H_3C_6H_5O_7$) in water has a density of 1.10 g/mL. Calculate the a) mass percent, b) molality, and c) mole fraction of the citric acid.

5) The most concentrated aqueous solution of NaOH that can be prepared is approximately 50% by mass. Calculate the a) mole fraction and b) molality of NaOH in this solution.