Assignment – Molarity & Molality

1. What is the molarity of a solution in which 211g sodium hydrogen carbonate is dissolved in a 10.0L solution?
   1. Ans - 0.251M
2. How many milliliters of a 5.0*MCuSO*4 solution are needed to prepare 0.350*L* of 0.500*MCuSO*4?
   1. Ans - 35*mL*
3. What are the concentrations of aluminum and sulfate ions in a 3.0 M solution of aluminum sulfate?
   1. Ans - 6.0*MAl*3+

9.0*MSO*2−4

1. What is the molality of a solution made by adding 9.5*g* of *NaCl* to 300*g* of water?
   1. Ans - .54*m*
2. How many *ml* of water are needed to dilute 65*ml* 7*M* *KCl* to 2*M*?
   1. Ans - 227.5*ml*
3. Calculate the molality of solution of 13.0 g benzene, C6H6 in 17.0 g CCl4
   1. Ans - **9.80 molal C6H6**
4. Calculate molality of solution having 36g Glucose in 500g water.
   1. Ans – 0.4m
5. Calculate molality of solution containing 0.85g of ammonia in 100 ml liquid of density 0.85 g/ml
   1. Ans - O.58m