# HC – Molality and Mole Fraction Problems

**Round final answers to the proper number of significant figures.
**Round atomic masses to the nearest hundredth when calculating molar masses.

1) A solution is made by dissolving 56.7 g sodium chlorate in 897 g water.  What is the concentration of the solution in:
      a)  percent by mass
      b)  molality
      c) mole fraction of sodium chlorate

2) What is the molality of a solution made by dissolving 20.0 g sliver nitrate in 225 g water?

3) What volume, in liters, of a 2.00 M KCl solution contains 2.5 g of KCl?

4) A solution of ethanol, $C_2H_6O$, is prepared by dissolving 14.0 g $C_2H_6O$ in 100.0 g water.
      a)  What is the molality of the solution?
      b)  What is the % (m/m) concentration of the solution?

5) A solution is made by dissolving 65.0 g NaCl, 45.5 g KOH in 74.6 g $H_2O$.  What is the mole fraction of NaCl in the solution?