

Molar Concentration Worksheet

Due Friday November 4, 2011

1. What mass, in grams, of calcium nitrate are there in 867mL of a 2.00M calcium nitrate solution? **(answer: 285g)**
2. What is the molarity of a solution made by dissolving 20.0g silver nitrate in 225g of water? **(answer: 0.523M)**
3. What volume, in litres, of a 2.00M KCl solution contains 2.5g of KCl? **(answer: 0.017L)**
4. The density of a 60.00% ethanol, C₂H₅OH solution is 0.8937 g/mL. What is the molarity of the solution? **(answer: 11.64M)**
5. The concentration of a Pb(NO₃)₂ solution is 0.907M. What is the density of the solution in grams per mL? **(answer: 1.25g/mL)**
6. Find the molar concentration of each of the ions in a solution that contains 0.165moles of aluminum chloride in 820mL? (show the dissociation equation first, and use ratios for the concentration of all ions) **(answer: 0.201M Al³⁺, 0.603M Cl⁻)**