

Name _____ Per. _____ Date _____

Multiple Choice Worksheet

- Which of the following produces the greatest boiling point elevation per mole dissolved into 1 L of water?
 - Nitrogen dioxide NO_2 (g)
 - Iodine I_2 (s)
 - Glucose $\text{C}_6\text{H}_{12}\text{O}_6$ (s)
 - Naphthalene C_{10}H_8 (s)
 - Calcium oxide CaO (s)
- When 190 grams of MgCl_2 are dissolved in water and the resulting solution is 500 millimeters in volume, what is the molar concentration of MgCl_2 in the solution?
 - 2.0 M
 - 4.0 M
 - 8.0 M
 - 12.0 M
 - 16.0 M
- The molality of a 1.0-molal ethyl alcohol solution may be determined if which of the following is supplied?
 - Density of the solution
 - Van't Hoff factor for ethyl alcohol
 - Temperature of the solution
 - Volume of the solution
 - Solubility of ethyl alcohol
- A solution of chloroform, CHCl_3 , in carbon tetrachloride, CCl_4 , is nearly ideal. The vapor pressure of chloroform is 10 mm Hg at 20 °C, and the vapor pressure of carbon tetrachloride is 87 mm Hg at this temperature. What is the mole fraction of carbon tetrachloride in the vapor over an equimolar solution of these two liquids?
 - 0.25
 - 0.87
 - 0.66
 - 0.50
 - 0.34
- A 5.2 molal aqueous solution of methyl alcohol, CH_3OH , is supplied. What is the mole fraction of methyl alcohol in this solution?
 - 0.10
 - 0.19
 - 0.086
 - 0.050
 - 0.094