

CHEMISTRY

MOLALITY (m) PRACTICE II

A. Calculate the molality (m) of the following solutions:

_____ 1. 144 g of $C_6H_{12}O_6$ in 1000 g of H_2O

_____ 2. 48 g of CH_3OH in 200 g of H_2O

_____ 3. 600 g of C_3H_7OH in 600 g of H_2O

_____ 4. 180 g of C_3H_7OH in 1000 g of H_2O

_____ 5. 19.2 g CH_3OH in 500 g of H_2O

_____ 6. 370 g C_4H_9OH in 400 g of H_2O

_____ 7. 87 g of $Mg(OH)_2$ in 500 g of H_2O

_____ 8. 16.64 g of $BaCl_2$ in 400 g of H_2O

_____ 9. 6.75 g $C_6H_{12}O_6$ in 325 g of H_2O

_____ 10. 31 g of $C_2H_4(OH)_2$ in 200 g of H_2O

B. Solve the following problems:

_____ 11. Determine the grams of solute required to prepare a 3.00m solution of KOH containing 1500 g of water.

_____ 12. Determine the grams of solute required to prepare a 0.500m solution of CH_3COOH containing 750 g of water.

_____ 13. Calculate the mass of water required to make a 0.500m solution that contains 20.0 g of $NaCl$.

_____ 14. How many grams of solute are required to prepare a 1.25m solution of $NaCl$ containing 250.0 g of water?

_____ 15. What is the molality of a solution that contains 5.10 moles of KNO_3 in 4470 g of water?