Chemistry Colligative Properties Review Name:

Carefully complete the following problems involving colligative properties. Show all work and label answers.

1. Determine the boiling point of a solution containing 85.1 g of glucose (C₆H₁₂O₆) dissolved in 35.0 g of water.
2. A solution is created by dissolving 10.3 g of methanol (CH₃OH) in 120.0 g of phenol. What would the freezing point of this solution be?
3. Identify the molality of an ether solution if the boiling point is 38.2ᵒC.
4. What mass of antifreeze, also known as ethylene glycol (C₂H₆O₂) dissolved in 45.0 g of water is needed to depress the freezing point 2.50ᵒC?
5. What is the boiling point of an electrolytic solution created by dissolving 135 g of calcium bromide in 80.0 g of water?