Chemistry Unit 7 NAME\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

HW 1 – 2 Quiz Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Period\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. What is the molarity of a solution made by dissolving 26.42 g of ammonium sulfate in enough water to make 50.00 ml of solution?
2. A solution is prepared by dissolving 17.1 g of sucrose (C12H22O11) in 275 g water. What is the molality of the solution?
3. If you dissolve 25 grams of sodium chloride in 5 liters of water, what is the percent by mass of the sodium chloride?
4. What mass of calcium hydroxide is contained in 45 ml of a 0.5 M solution?
5. What mass of water must be added to 50 g of potassium nitrate to make a 0.5 m solution?
6. You have 16 M sulfuric acid. How much of the acid must you dilute in order to get 500 ml of a 2 M sulfuric acid solution?
7. Use the solubility curve provided to answer the following questions:
8. If you dissolved 134 g of sodium nitrate in 100 g water at 70 °C then cooled the solution to 10 °C, what mass of solute would precipitate?
9. What mass of potassium chloride will dissolve in 70 g of water at 40°C?

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