Molarity Problems Name_____Date_____Class_____

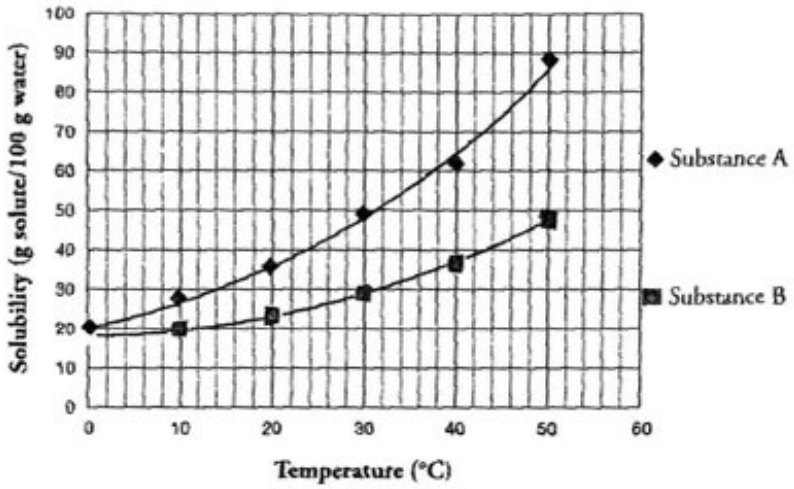
Molarity is moles of solute per liter of solution. M = moles solute/Liter solution

Equipment available: 500 mL beaker, 1000 mL beaker, 500 mL graduated cylinder, 1000 mL graduated cylinder, 250 mL volumetric flask, 1000 mL volumetric flask, weigh boat, electronic balance, scoop, distilled water.

1. A. How many grams of solid sodium chloride would be needed to make 250.0 mL of a 0.200 M solution of sodium chloride?

B. Explain how to prepare the solution above. What equipment would you use? What steps would you take?

2. How would you prepare 800.0 mL of .150 M $Cu(NO_3)_3$ solution from a 1.00 M stock solution? Math and an explanation what to do are required.



1. How would you prepare 300 mL a saturated solution of substance A at 24°C? Show math and explain.

2. If 15 grams of substance B are dissolved in 100 grams of water at 18°C, would you describe the solution as saturated, unsaturated or supersaturated?

3. If a saturated solution of A is prepared at 40°C and then allowed to cool to 10°C, approximately how many grams of A will precipitate? Note: Substance A does not supersaturate. Show math and explain?