

SOLUTIONS WALK AROUND PRACTICE PROBLEMS

- 1 A saturated 100 mL solution of ammonium chloride at 80°C is cooled to 40°C .
How many grams of solute precipitate out?
- 2 A saturated 325 mL solution of ammonia at 20°C is warmed up to 40°C .
How many grams of solute precipitate out?
- 3 A 100 mL solution of HCl at 40°C contains 20 g of solute. How much more solute can fit into this solution?
- 4 A pond of 34,560 L contains 247 g of water strider bug urine. What's the PPM of bug urine in this solution?
- 5 What is the molarity of a saturated solution of sodium nitrate at 30°C?
- 6 A 3475 mL solution contains 573 grams of CuCl_2 , what is the molarity of this solution?
- 7 What is the freezing point of a 1.0 Liter 2.25 M $\text{Ca}(\text{NO}_3)_2(\text{AQ})$ solution?
- 8 What is the boiling point of one liter of 4.25 M $\text{KNO}_3(\text{AQ})$ solution?
- 9 How many moles of NaCl are in 375 mL of saturated solution at 90°C?
- 10 Name the best and worst electrolyte. All are 1.0 liter solutions:
A. 3.0 M $\text{Sr}(\text{NO}_3)_2$ B. 1.0 M $(\text{NH}_4)_3\text{PO}_4$ C. 2.5 M SrSO_4 D. 4.0 M LiCl
- 11 How to you prepare a 225 mL 1.33 M $\text{LiNO}_2(\text{AQ})$ from a stock solution of 4.68 M?
- 12 Compare the colligative properties of water with a solution of 1.0 M $\text{ZnBr}_2(\text{AQ})$.
No math, say higher or lower than water's numbers.

12	Water	1.0 M $\text{ZnBr}_2(\text{AQ})$
Freezing point		
Boiling Point		
Vapor Pressure		