

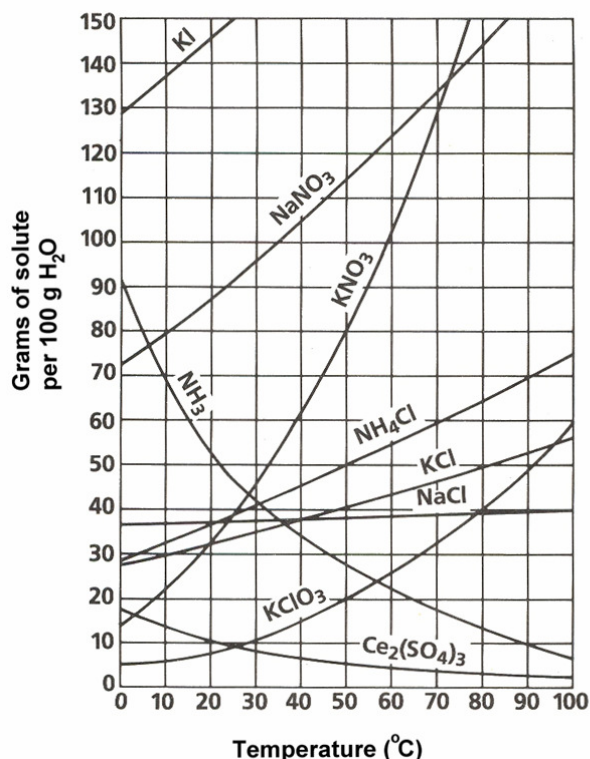
8. What is the purpose of diluting a solution?
9. Besides molarity, what are two other ways of expressing the concentration of a solution?
10. Why doesn't a solute settle out of a solution as is seen in a suspension?
11. What is a supersaturated solution?

II. Using the provided graph, answer the following questions in complete sentences:

12. For each of the following solutions, describe its relationship between solubility and temperature as "direct" or "inverse":

- a. NH_3 -
- b. NH_4Cl -
- c. KClO_3 -
- d. KCl -
- e. $\text{Ce}_2(\text{SO}_4)_3$ -
- f. NaCl -

13. How many grams of KNO_3 can be dissolved in 100 g of H_2O at room temperature (25°C)? At what temperature can H_2O dissolve three times as much KNO_3 ?



14. At what temperature can 100 g of H_2O dissolve the same amount of NH_3 as NaNO_3 ? Why do you think one of these relationships is inverse while the other is direct?