

# Interpreting Solubility Curves

NAME \_\_\_\_\_

Using the graph on Master 12-1, answer the following questions.

- Which substance does not appear to increase greatly in solubility as the temperature is increased?  $\text{NH}_4\text{Cl}$ ,  $\text{NaCl}$
- Which substance appears to decrease in solubility as the temperature is increased?  $\text{NH}_3$
- Which substance appears to increase most in solubility as the temperature is increased?  $\text{KNO}_3$
- Which substance is most soluble at  $0^\circ\text{C}$ ?  $\text{KI}$
- Which substance is least soluble at  $0^\circ\text{C}$ ?  $\text{KClO}_3$
- Which two substances have the same solubility at  $71^\circ\text{C}$ ?  $\text{NaNO}_3$  +  $\text{KNO}_3$
- What is the most  $\text{KNO}_3$  that can be dissolved at  $70^\circ\text{C}$ ? 130g
- What is the most  $\text{NH}_4\text{Cl}$  that can be dissolved at  $70^\circ\text{C}$ ? 47g
- At  $70^\circ\text{C}$  which substance,  $\text{KNO}_3$  or  $\text{NH}_4\text{Cl}$ , can form the more concentrated solution?  $\text{KNO}_3$
- At what temperature would you need 100 g of water to dissolve 70 g of  $\text{NH}_4\text{Cl}$ ?  $150^\circ\text{C}$
- At what temperature would you need 100 g of water to dissolve 70 g of  $\text{KNO}_3$ ?  $42^\circ\text{C}$

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