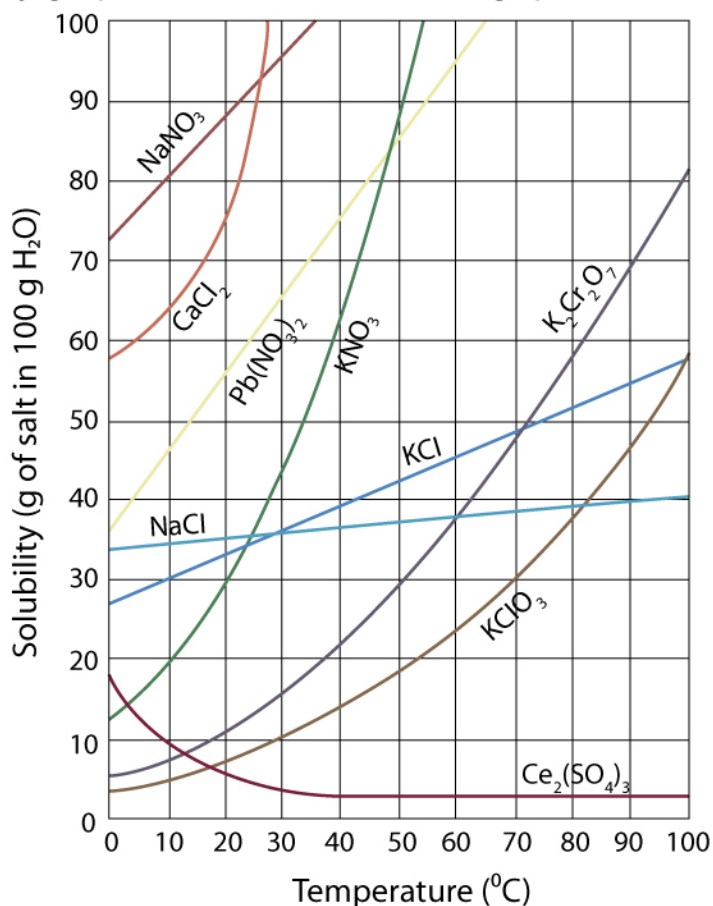


Name : _____

Solubility Graph

Use the given solubility graph to answer the following questions:



1. An amount of solute and a temperature are stated. Suppose all the solutes could be dissolved in 100 g of water at the given temperature. Would the resulting solution be unsaturated, saturated, or supersaturated?

- I. 60 g KCl at 70 °C _____
- II. 10 g KClO₃ at 60 °C _____
- III. 80 g NaNO₃ at 10 °C _____
- IV. 70 g CaCl₂ at 20 °C _____

2. Find the mass of solute that will dissolve in 100 mL water at the following temperature?

- I. KNO₃ at 40°C = _____
- II. NaCl at 100°C = _____
- III. KCl at 90°C = _____
- IV. Which of the above three substances is most soluble in water at 15°C. = _____

3. Answer the given questions.

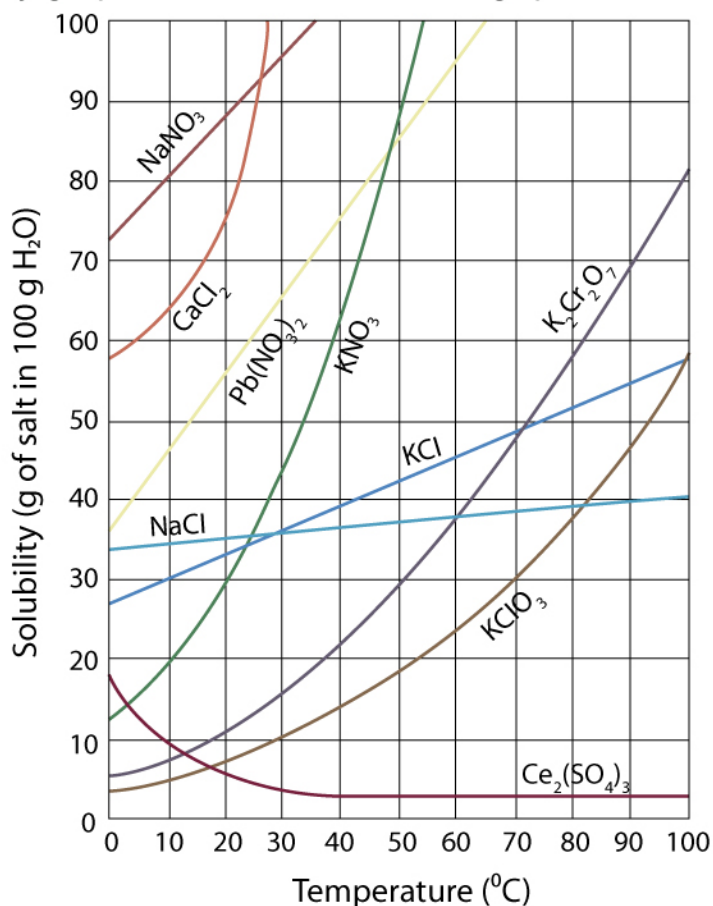
- I. What is the solubility of KCl at 5 °C? _____
- II. What is the solubility of KCl at 25 °C? _____
- III. What is the solubility of Ce₂(SO₄)₃ at 10 °C? _____
- IV. What is the solubility of Ce₂(SO₄)₃ at 50 °C? _____

Name : _____

Solubility Graph

Answers

Use the given solubility graph to answer the following questions:



1. An amount of solute and a temperature are stated. Suppose all the solutes could be dissolved in 100 g of water at the given temperature. Would the resulting solution be unsaturated, saturated, or supersaturated?

- I. 60 g KCl at 70 °C Supersaturated
- II. 10 g KClO₃ at 60 °C Unsaturated
- III. 80 g NaNO₃ at 10 °C Saturated
- IV. 70 g CaCl₂ at 20 °C Unsaturated

2. Find the mass of solute that will dissolve in 100 mL water at the following temperature?

- I. KNO₃ at 40°C = 64 g
- II. NaCl at 100°C = 40 g
- III. KCl at 90°C = 55 g
- IV. Which of the above three substances is most soluble in water at 15°C. = NaCl

3. Answer the given questions.

- I. What is the solubility of KCl at 5 °C? 28 g/100 mL
- II. What is the solubility of KCl at 25 °C? 34 g/100 mL
- III. What is the solubility of Ce₂(SO₄)₃ at 10 °C? 13.5 g/100 mL
- IV. What is the solubility of Ce₂(SO₄)₃ at 50 °C? 5 g/100 mL