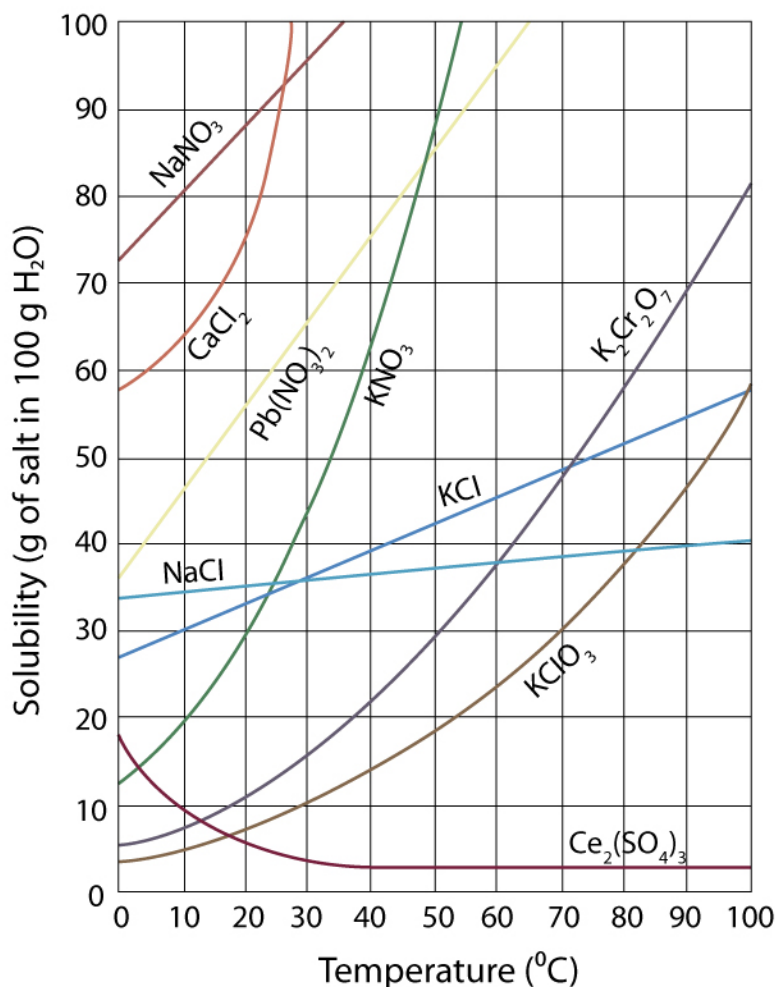


Name : _____

Solubility Worksheet

Use the solubility curve below and answer the given questions.



1. A solute and temperature are given. Tell how many grams of each solute must be added to 100 g of water to form a saturated solution at the given temperature.

- I. $\text{Pb}(\text{NO}_3)_2$ at 10 °C _____ II. NaCl at 20 °C _____
III. $\text{Ce}_2(\text{SO}_4)_3$ at 50 °C _____ IV. $\text{K}_2\text{Cr}_2\text{O}_7$ at 50 °C _____

2. Underline the solution that is more concentrated.

- I. At 10 °C: a saturated solution of KNO_3 or a saturated solution of CaCl_2 .
II. At 50 °C: a saturated solution of KNO_3 or an unsaturated solution of NaNO_3 consisting of 90 g of the solute dissolved in 100 g of water.

3. Show your work and circle your final answer.

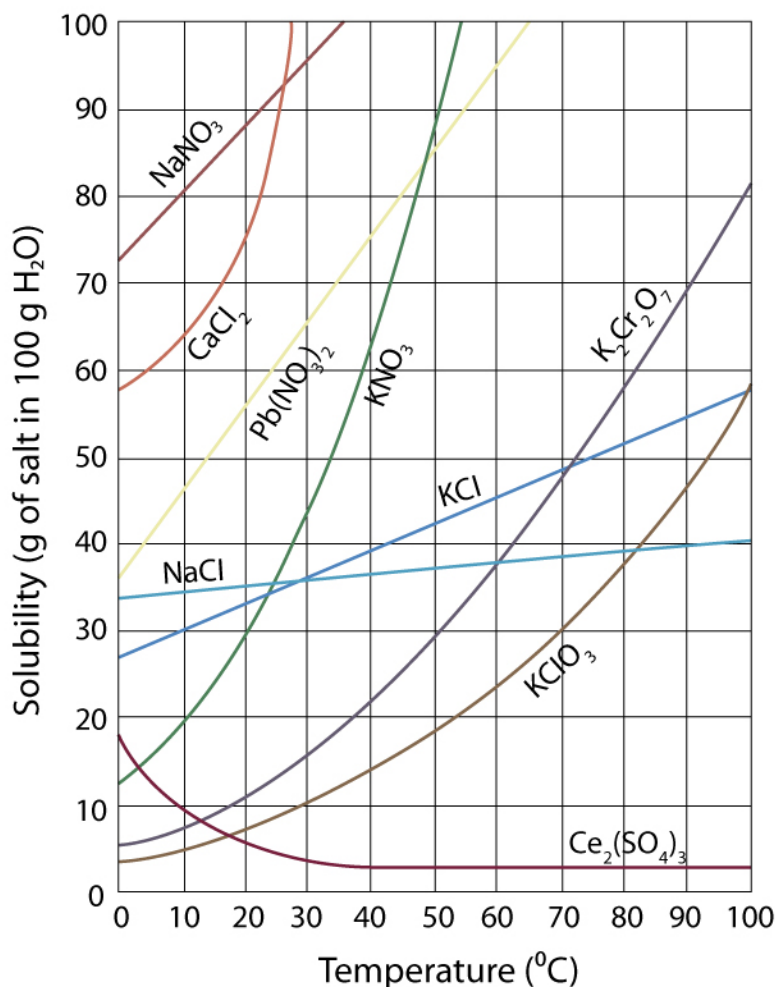
- I. If 115 g KNO_3 are added to 100 g of water at 35 °C, how many grams do not dissolve?
II. What mass of KCl would be needed to form a saturated solution if the KCl was dissolved in 200 g of water at 80 °C?

Name : _____

Solubility Worksheet

Answers

Use the solubility curve below and answer the given questions.



1. A solute and temperature are given. Tell how many grams of each solute must be added to 100 g of water to form a saturated solution at the given temperature.

I. Pb(NO₃)₂ at 10 °C 46 g

II. NaCl at 20 °C 35 g

III. Ce₂(SO₄)₃ at 50 °C 3 g

IV. K₂Cr₂O₇ at 50 °C 30 g

2. Underline the solution that is more concentrated.

I. At 10 °C: a saturated solution of KNO₃ or a saturated solution of CaCl₂.

II. At 50 °C: a saturated solution of KNO₃ or an unsaturated solution of NaNO₃ consisting of 90 g of the solute dissolved in 100 g of water.

3. Show your work and circle your final answer.

I. If 115 g KNO₃ are added to 100 g of water at 35 °C, how many grams do not dissolve?

$$115 \text{ g} - 53 \text{ g} = 62 \text{ g}$$

II. What mass of KCl would be needed to form a saturated solution if the KCl was dissolved in 200 g of water at 80 °C?

$$2 \times 52 \text{ g} = 104 \text{ g}$$