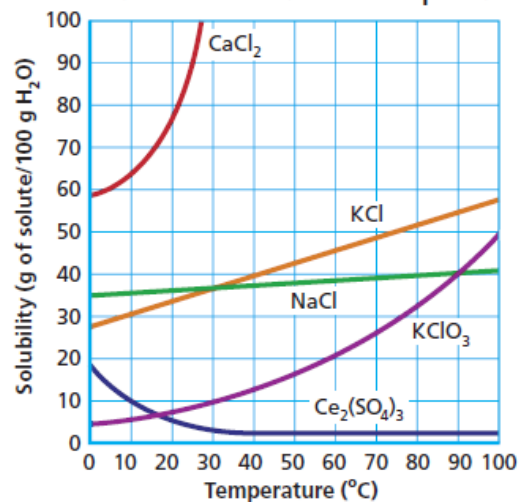


1) Define solubility of a substance.

2) Water-based solutions are known as \_\_\_\_\_ solutions and water is called the \_\_\_\_\_.

Solubilities as a Function of Temperature



3) The solvent is typically the substance in solution that is found in \_\_\_\_\_ amounts.

4) What do we mean when we say a solution is concentrated? What about diluted?

5) How would you describe the saturation level of a solution that contains 20 g KClO<sub>3</sub> dissolved in 100 g H<sub>2</sub>O at 80°C? Justify your response.

6) How would you describe the saturation level of a solution that contains 40 g KCl dissolved in 100 g H<sub>2</sub>O at 40°C? Justify your response.

7) How would you describe the saturation level of a solution that contains 30 g  $\text{KClO}_3$  dissolved in 100 g  $\text{H}_2\text{O}$  at  $50^\circ\text{C}$ ?

Justify your response.

8) 40 g  $\text{NaCl}$  is added to 200 g  $\text{H}_2\text{O}$  at  $70^\circ\text{C}$ . How should you describe the saturation level of this solution? Sketch a beaker to show what you would expect to see in this situation.

9) 70 g  $\text{CaCl}_2$  is added to 100 g  $\text{H}_2\text{O}$  at  $10^\circ\text{C}$ . How should you describe the saturation level of this solution? Sketch a beaker to show what you would expect to see in this situation.

10) Sketch a diagram to show the process of potassium bromide ( $\text{KBr}$ ) dissolving in water. Be sure to clearly label the particles. You must include at least 5 formula units of  $\text{KBr}$  in your sketches.

