

Name:
Grade:7(A, B)

Chemistry Worksheet

International School of Baalbek

Question one: Fill in the blank with the correct word:

- 1)Is a process based on applying a gravitational force that speed up sedimentation:
.....
- 2)Is a technique separates immiscible liquids based on the difference of their densities:
.....
- 3)Is a process that separate a mixture by deposition of sold particles at the bottom of the container:

Question two: During a lab session, A student dissolves 20g of sodium chloride salt in 400ml of distilled water. He obtained a solution have one phase which is labeled solution A.

Part A:

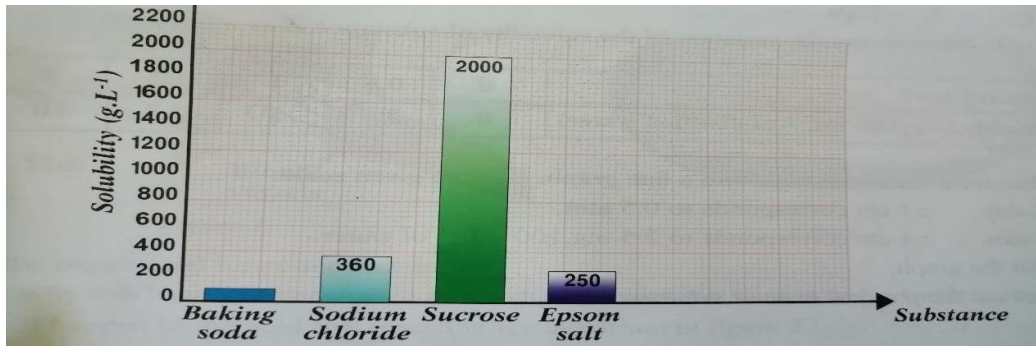
- 1)Indicate the type of the obtained mixture. Justify your answer
.....
.....
- 2)a-Define solute and solvent.
Solute:
Solvent:
- b-Indicate the solute and the solvent in the prepared solution.
Solute:..... Solvent:.....
- 3)Specify whether this solution is aqueous or non-aqueous.....
- 4)Determine the mass concentration of solution (A) in g/l.
.....

Part B: after that, the student adds 10g of sodium chloride salt to solution (A) . He gets solution (B).

- 5)Calculate the new mass of the solute in solution (B).....
- 6)Calculate the mass concentration of solution (B).
.....
- 7)Compare the mass concentration of solution (A) to that of solution (B). What do you conclude.....
.....
- 8)The teacher ask the student to heat part of solution (A). Specify whether the solution becomes more diluted or more concentrated.
.....

Question three:

Part A: The following histogram shows the solubility of various substance in distilled water



1) Define solubility.

.....

2) Referring to the following histogram, answer by true or false then correct the false one.

a) Epsom salt is the least soluble substance in water.

.....

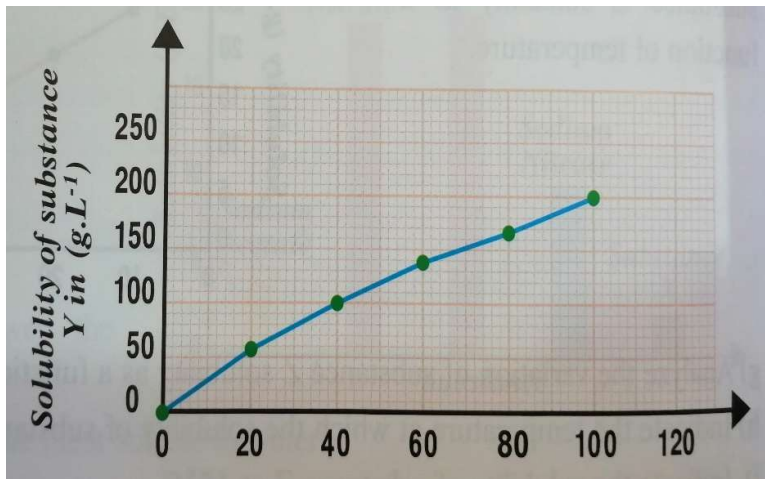
b) The most soluble substance in water has a solubility 2000g/l.

.....

c) If the concentration of sodium chloride is 350g/l then this solution is said to be concentrated.

.....

Part B: The following graph shows the variation of solubility of substance (Y) as a function of temperature:



1) Pick out the solubility of substance (Y) at temperature 40°C:

2) Indicate the temperature at which solubility is 200g/L:.....

Part C: The table below shows the variation of the solubility of substance (Z) as a function of pressure:

Pressure(atm)	0	0.5	1	1.5	2	2.5
Solubility (mg/l of distilled water)	0	2.5	5	7.5	10	12.5

1) Transform the above table into a graph showing the variation of the solubility of substance (Z) as a function of pressure.

X-axis: 1cm → 0.5atm

Y-axis: 1cm → 2.5g/l

Question four: The maximum mass of solute (M) that can be dissolved in 100ml of water is 200g.

1) Determine the solubility of substance (M).

.....

A student prepares three solutions as follow:

Solution 1: 20g of (M) + 10ml of water

Solution 2: 250g of (M) + 100ml of water

Solution 3: 100g of (M) + 100ml of water

2) Determine the concentration of solution 1, solution 2 and solution 3.

Solution 1:

.....

Solution 2:

.....

Solution 3:

.....

3) Specify the type of each solution.

Solution one:

.....

Solution 2:

.....

Solution 3:

.....