

PENANG SANGAM HIGH SCHOOL

YEAR 11

CHEMISTRY

WORKSHEET NUMBER 6

QUESTIONS

(For question 1, first identify the elements present and then use the periodic table to get the mass number of each element as this will help calculate the formula mass)

1. The formula mass of ammonium phosphate $(\text{NH}_4)_3\text{PO}_4$ is:

- A. 62 amu
- B. 113 amu
- C. 149 amu
- D. 242 amu

(Use your knowledge on finding the volume of a cube and then use the formula for calculating density to get the answer)

2. The density of a cube with a length of 2 cm and a mass of 40 g is

- A. 5 g/cm³
- B. 10 g/cm³
- C. 20 g/cm³
- D. 80 g/cm³

(In order to answer question 3, you need to write the electron configuration for the following atoms and ions provided)

3. The electron configuration 2, 8, 8, would be found in

- A. neon atoms.
- B. sodium ions.
- C. chloride ions.
- D. chlorine atoms.

(Use your knowledge on the relationship between solubility and temperature to answer the following questions)

4. In an experiment, two groups: Group A & Group B, dissolved Potassium nitrate (KNO_3) in the same amount of water (25ml) but, at two different temperatures.

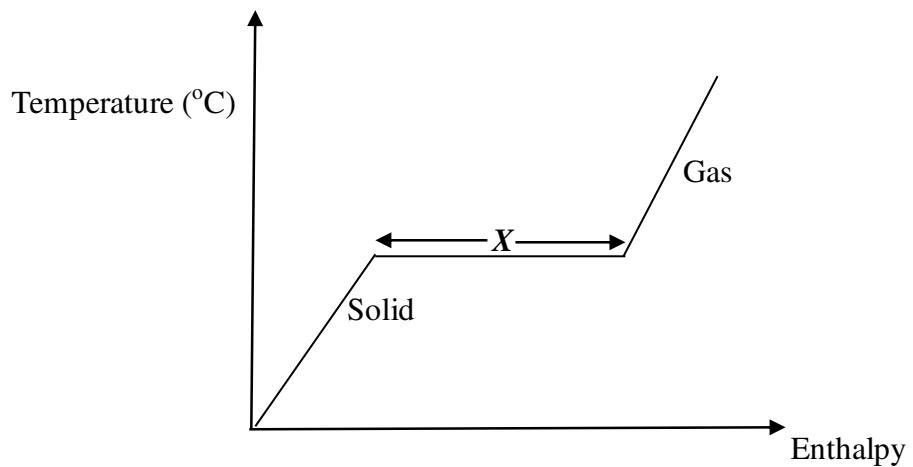
Group A dissolved KNO_3 at 33°C while, **Group B** dissolved KNO_3 at 60°C .

(i) At which **temperature** would you expect more KNO_3 to dissolve?

(ii) How is the solubility of KNO_3 affected by the change in the temperature?

(For question 5 use your knowledge on the heating curve of naphthalene, change of state of naphthalene to answer the following questions)

5. The graph given below shows the heating curve of naphthalene



- (i) What **name** is given to region labelled **X**?

- (ii) Briefly state what happens at region **X**

THE END