**Organization of Matter Class Worksheet**

1. In the laboratory, a student was given two solids and asked to identify them using the information in the following table.

|  |  |  |  |
| --- | --- | --- | --- |
| Solid | Conducts  Electricity | Is Magnetic | Density  (g/cm3) |
| Copper | Yes | No | 8.96 |
| Iodine | No | No | 4.93 |
| Nickel | Yes | Yes | 8.80 |
| Titanium | Yes | No | 4.70 |

He examined these solids and recorded his observations in the table below.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Solid | Conducts  Electricity | Is Magnetic | Mass  (g) | Volume  (cm3) |
| 1 | Yes | Yes | 66.8 | 7.6 |
| 2 | Yes | No | 29.6 | 6.3 |

What is each solid?

A) Solid 1 is copper and solid 2 is nickel C) Solid 1 is titanium and solid 2 is iodine B) Solid 1 is nickel and solid 2 is titanium D) Solid 1 is iodine and solid 2 is copper

1. A group of 4 students are given two unknown liquids. They need to determine whether the two substances are the same or different. Each student proposes a different experiment to solve the question. Which student(s) is right?

1- The first student proposes to determine the density of the liquids

2- The second proposes to weigh the 2 liquids

3- The third says to find the freezing point of the liquids

4- The forth says to do a litmus paper test on the liquids

A) 1 B) 1 and 2 C) 3 and 4 D) 1 and 3

1. You conducted a laboratory experiment to identify the properties of an unknown liquid.

These properties are as follows :

- The liquid turns cobalt chloride paper pink. - The liquid has a density of 1.05 g/cm3.

- The liquid turns blue litmus paper red. - The liquid conducts electricity.

Given these properties, which of the following statements is true?

A) The unknown liquid is distilled water. C) The unknown liquid is a basic solution.

B) The unknown liquid is an acidic solution. D) The unknown liquid is neutral

1. During a lab experiment, a student heats 15 g of copper powder which has a red-brown colour. After several minutes the students notices that the copper powder has become a black powder. He takes the mass of the black powder after the reaction and the mass has increased to 18.3 g.

A) What type of chemical reaction occurred during the experiment?

B) Why had the mass of the copper powder increased?

C) Is the copper powder an element or a compound?

D) Is the black powder an element or a compound?