May 17, 2019

1) Quiz on Balancing Equations

2) Balancing Eqn's with mass

!! We are almost done Chemistry Test week after next on Chp 6!!!

Quiz Balancing Equations

Recall Law of Conservation of Mass

that matter is neither lost nor gained in chemical reactions; it simply changes form.

There are two ways to look at this:

so when you look at a chemical reaction it must have the same number of atoms of each element in the reactants and in the products (this is what we did with balancing equations)

As well as the mass of reactants and the mass of the products must also be equal.

Examples with mass

1.

A solid has a mass of 20g. When it is mixed with a solution a chemical reaction occurs in which a gas is produced. If the final total mass of the products is 55g, what was the mass of the solution?

solid + solution → gas + product

20g + ? → 55g

? = 35g

2.

Solution A has a mass of 40g. Solution B has a mass of 20g. When they are mixed together a chemical reaction occurs in which a gas is produced. If the mass of the final mixture is 35g, what mass of gas was produced?

A + B → gas + products

40g + 20g → 35g

60g → ? + 35g

25g = gas   60g

3. 6g of Hydrogen + 2g of oxygen, how much H_2O is created?

Hydrogen + oxygen → water

6g + 2g →

8g →

water = 8g

Dec 19-10:22 AM

More Examples

3. consider the following reaction:

$2H_2 + O_2 \rightarrow 2\ H_2O$

If 12 grams of hydrogen and 6 grams of oxygen react together, what mass of water is created?

hydrogen + oxygen → water

12g + 6g → ?

18g →

18g of water

4. If 5 grams of sodium reacts with oxygen to form 23 grams of sodium oxide. How many grams of oxygen reacted?

sodium + oxygen → sodium oxide

5g + ? → 23g

oxygen = 18g

Nov 21-1:14 PM

HW Complete
Balancing with Mass WS

Dec 12-1:09 PM