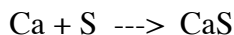


CHEMICAL EQUATIONS

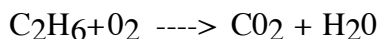
A great deal of what chemists do centers around chemical equations. In this section we will look at some common terms and concepts related to simple chemical equations. Each chemical equation involves the chemicals that are mixed together (which we call the reactants) and the chemicals that are produced (which we call the products.) The reactants are on the left side of the arrow and the products are on the right.



In this reaction, one atom of Ca reacts with one atom of S to make one unit of CaS. The calcium and sulfur are the reactants, and the calcium sulfide is the product.

EXAMPLE 1

What are the products and the reactants in the following reaction:



reactants: C_2H_6 and O_2
products: CO_2 and H_2O

EXAMPLE 2

How many atoms of carbon are found on the reactant side of the above equation?

Answer: 2

How many atoms of carbon are found on the product side of the above equation?

Answer: 1

How many atoms of oxygen are found on the reactant side of the above equations?

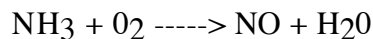
Answer: 2

How many oxygen atoms are found on the product side of the above reaction?

Answer: 3 (2 in the CO_2 and one in the H_2O)

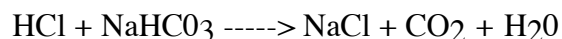
STUDENT PRACTICE PROBLEMS

1. Tell which chemicals are the reactants and which are the products in each of the following reactions?



reactants:

products:



reactants:

products:

2. How many atoms of H are on the reactant side of the first equation?

3. How many H atoms are on the product side of the first equation?

4. How many oxygen atoms are on the reactant side of the first equation?

5. How many oxygen atoms are on the product side of the first equation?

6. How many H atoms are on the reactant side of the second equation?

7. How many H atoms are on the product side of the second equation?

8. How many oxygen atoms are on the reactant side of the second equation?

9. How many oxygen atoms are on the product side of the second equation?

10. Are there the same number of each kind of atom on both sides (reactant side and product side) of each chemical equation?