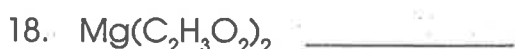


NUMBER OF ATOMS IN A FORMULA

Name _____

Determine the number of atoms in the following chemical formulas.



Reactants & Products

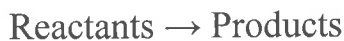
All chemical reactions—including a candle burning—involve reactants and products.

- **Reactants** are substances that start a chemical reaction.
- **Products** are substances that are produced in the reaction.

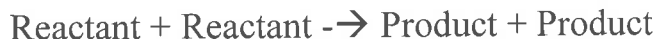
When a candle burns, the reactants are fuel (the candlewick and wax) and oxygen (in the air). The products are carbon dioxide gas and water vapor.

Relating Reactants and Products

The relationship between reactants and products in a chemical reaction can be represented by a chemical equation that has this general form:



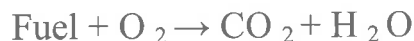
You may also see:



The arrow (\rightarrow) shows the direction in which the reaction occurs. In many reactions, the reaction also occurs in the opposite direction. This is represented with another arrow pointing in the opposite direction (\leftarrow).

Q: Write a general chemical equation for the reaction that occurs when a fuel such as candle wax burns.

A: The burning of fuel is a combustion reaction. The general equation for this type of reaction is:



Q: How do the reactants in a chemical reaction turn into the products?

A: Bonds break in the reactants, and new bonds form in the products.

PLEASE ANSWER THE QUESTIONS ON THE FOLLOWING PAGE!

Name _____ Period _____ Date _____

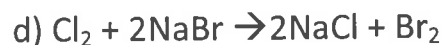
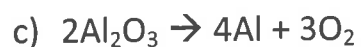
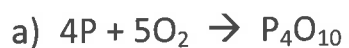
1) What is a reactant?

2) On which side of the arrow do you find reactants? _____

3) What is a product?

4) On which side of the arrow do you find products? _____

5) Circle the reactants in the chemical equations below. Put a box around the products.



6) What do the small numbers (subscripts) after the elements mean?

7) Why are there large numbers in front of some of the elements?
