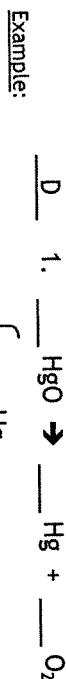


## Identifying and Balancing Chemical Equations

**Law of Conservation of Mass:** in any process, mass cannot be created nor destroyed

In order to obey the Law of Conservation of Mass, we must "balance" equations, or make the numbers of all atoms the same on both sides of the arrow.

We cannot ever change subscripts to do this, so we balance by using **coefficients** in front of the chemical formulas.



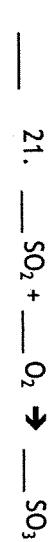
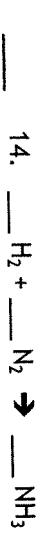
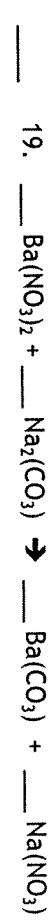
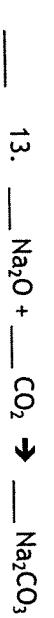
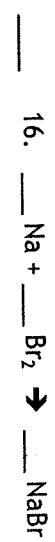
Inventory {  
    — Hg —  
    — O —

Identify each of the equations below as **synthesis (S)**, **decomposition (D)**, **single replacement (SR)**, or **double replacement (DR)**. Balance each of them using the inventory method. An example inventory has been set up for you in number 2.

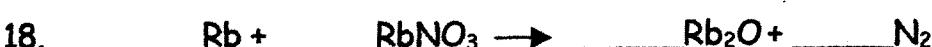
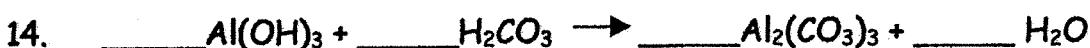
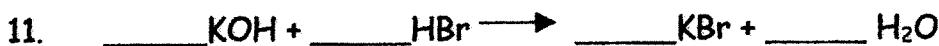
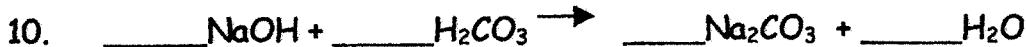
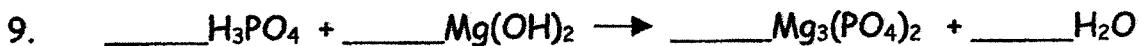
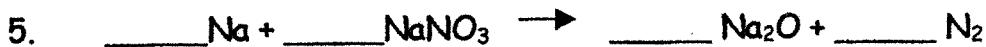
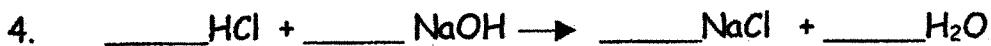
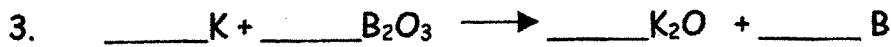


    — Na —  
    — Cl —  
    — Ag —  
    — NO<sub>3</sub> —



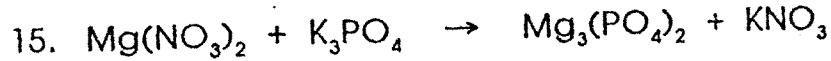
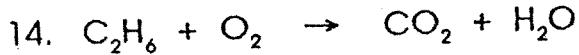
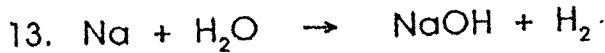
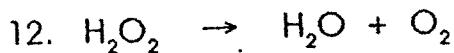
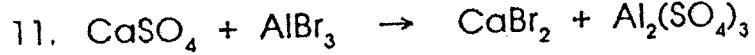
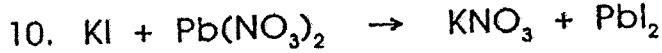
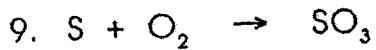
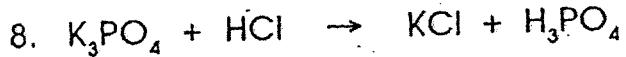
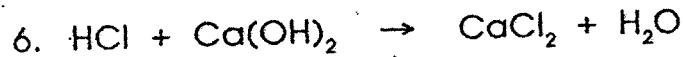
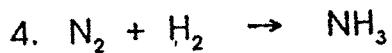
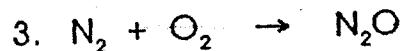
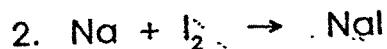
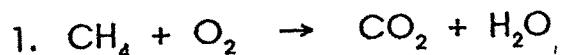


## Balancing Equations



# BALANCING EQUATIONS

Balance the following chemical equations.



# BALANCING EQUATIONS

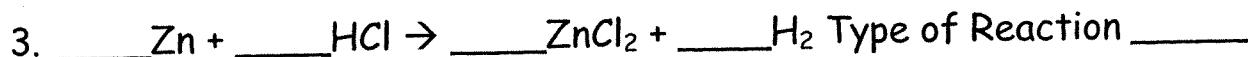
For the following reactions, balance the equations and identify the type of reaction as synthesis (S), decomposition (D), single replacement (SR), double replacement (DR), or combustion (C). Put in your final answer the boxes.



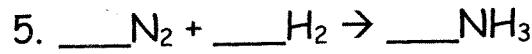
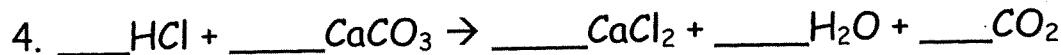
Type of Reaction \_\_\_\_\_



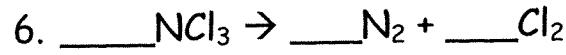
Type of Reaction \_\_\_\_\_



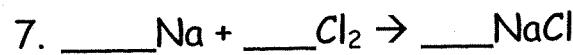
Type of Reaction \_\_\_\_\_



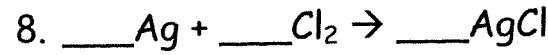
Type of Reaction \_\_\_\_\_



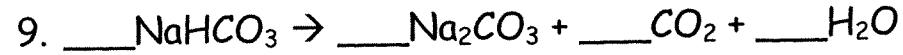
Type of Reaction \_\_\_\_\_



Type of Reaction \_\_\_\_\_



Type of Reaction \_\_\_\_\_



TR \_\_\_\_\_



TR \_\_\_\_\_

