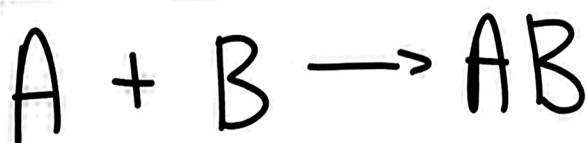


# Combination and Decomposition Reactions

## Combination (Combo) Reaction

Two atoms or ions bond together to form a single compound or molecule.

general form

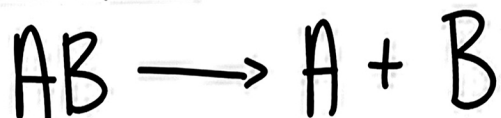


## Decomposition (Decomp) Reaction

A single compound or molecule breaks their bond to form two atoms or ions.

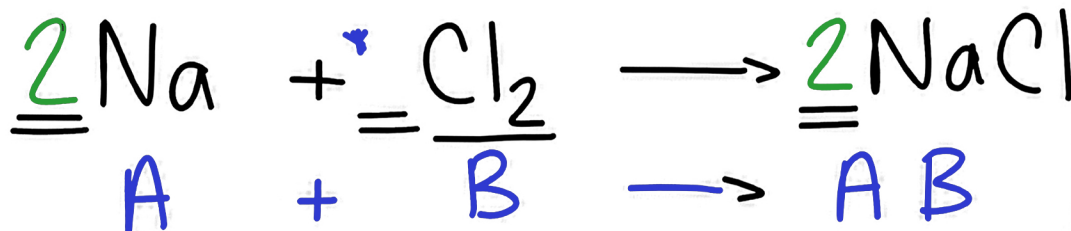
(polyatomic ions don't separate)

general form



## Combination Reaction Examples

general form:  $A + B \longrightarrow AB$



A: Na

B: Cl<sub>2</sub>

AB: NaCl

Ratio: 2:1:2

= : Chemical  
Rxn. Ratio

How many of each part we have in reaction.

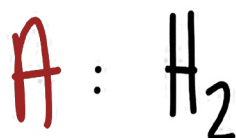
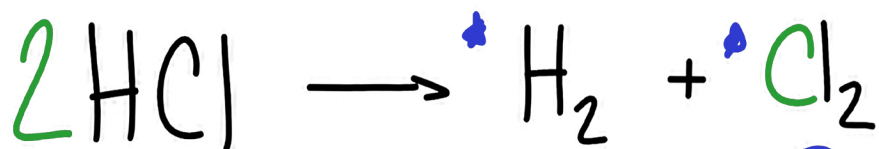
\*      = 1

Diatomic Element

X<sub>2</sub>: Element that exists as a pair

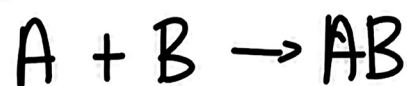
## Combination Reaction Examples

general form:  $AB \rightarrow A + B$

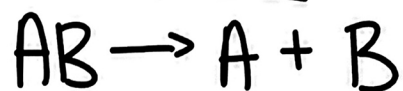


Recap

Combo Rxn



Decomp Rxn



\* No # = Ratio of 1