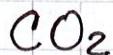


Tweet!

Write as many chemical formulas you know.



## Nomenclature Names & Formulas

IUPAC - International  
union of Pure & Applied  
chemistry

### 1) Type III (Covalent) Nomenclature

↓  
2 nonmetals

A. Names - use prefixes to tell the # atoms of each element in the formula.

#### Prefixes

\* only used on the 2nd nonmetal

\* 1 mono-  
2 di-  
3 tri-  
4 tetra-

5 penta-  
6 hexa-  
7 hepta-  
8 octa-

9 nona-  
10 deca-

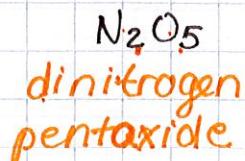
- write the prefix & name of the 1<sup>st</sup> nonmetal.
- do the same for the 2<sup>nd</sup> nonmetal, change the ending to -ide



dihydrogen monoxide



phosphorous trichloride

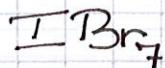


## B. Formulas

- write symbol for the 1<sup>st</sup> nonmetal, change prefix to a subscript
- do the exact same for the 2<sup>nd</sup> nonmetal.

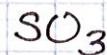
Ex) iodine

heptabromide



sulfur

trioxide



dinitrogen

monoxide



carbon

monoxide



## 2) Type I (Ionic) Binary Nomenclature

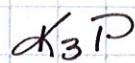
↓  
metal +  
nonmetal

↓  
2 elements

### A. Names - No Prefixes!

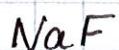
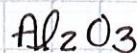
- write the name of the metal cation
- write the name of the nonmetal anion, change the ending to -ide

Ex)  $\text{CaBr}_2$



calcium bromide

potassium  
phosphide

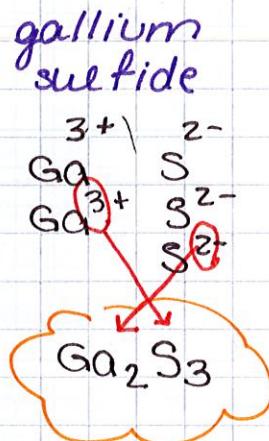
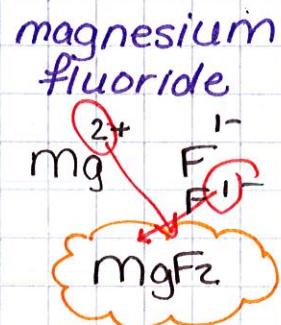
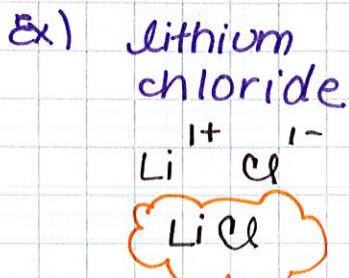


aluminum  
oxide

sodium  
fluoride

## B. Formulas

- write symbol & charge for the metal cation.
- do the same for the nonmetal anion.
- make sure the charges add up to zero.



criss-cross method

