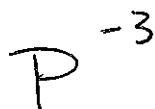
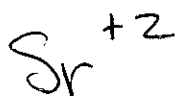


\* Bell ringer

1. Predict the charges
2. Write the formula

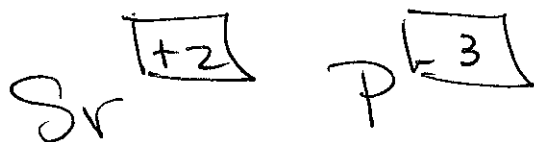
Strontium Phosphorus



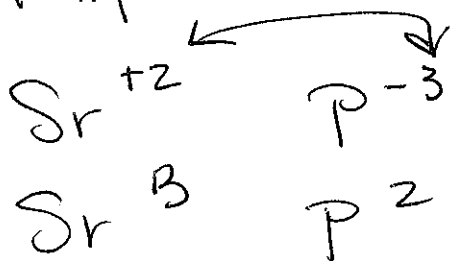
Shortcut time!

\* Take it, flip it, drop it down  
For ionic!

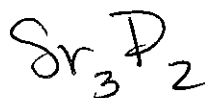
1. Take the charges



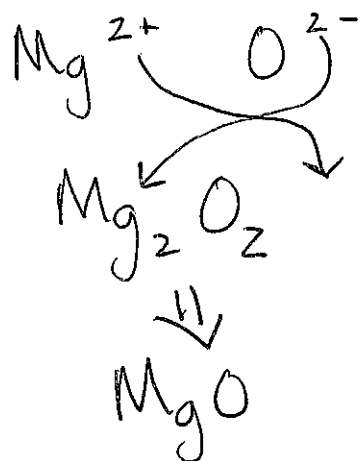
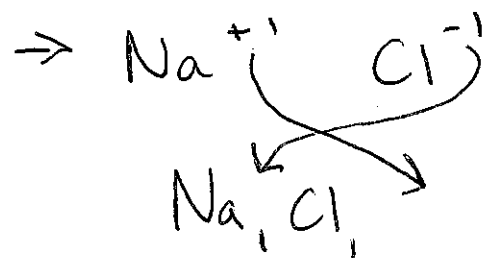
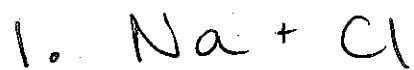
2. Flip it



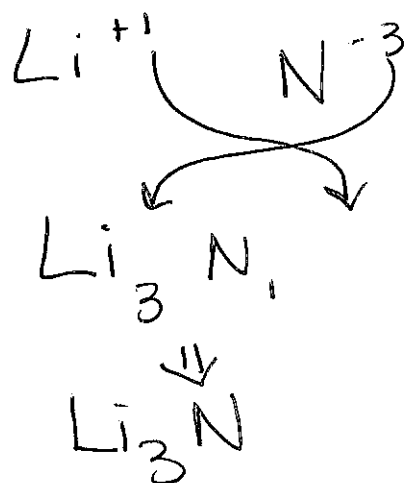
3. Drop it down



# Practice:

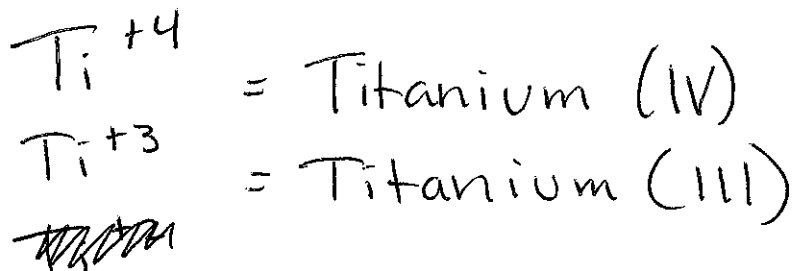


\* Always remember to simplify the subscripts.



# \* Ionic compounds with multiple charges \* Transition Metals

↳ have multiple charges.  
+ This is why we have skipped them so far



\* Always cations! (+ charge)

When writing, use roman numerals

1 = I

2 = II

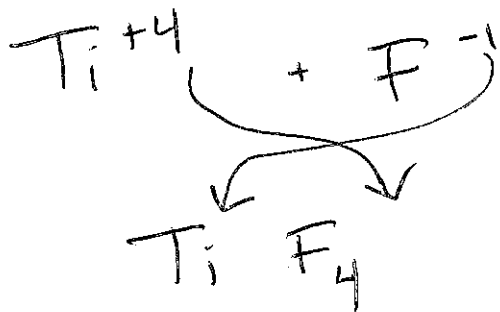
3 = III

4 = IV

5 = V

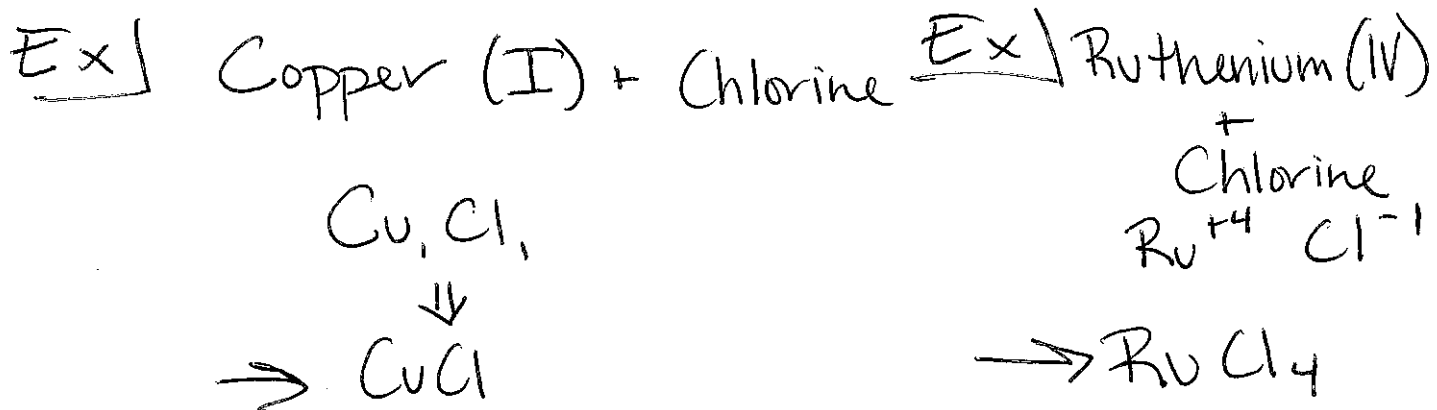
\* 4 by league schools  
↓  
IV

Ex] Titanium (IV) + Fluorine



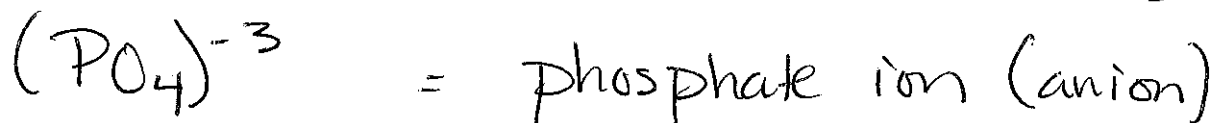
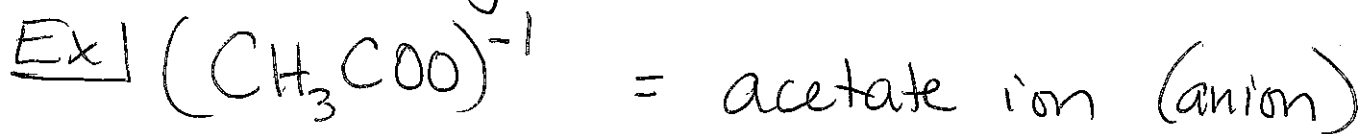
Ex] Titanium (III) + Fluorine



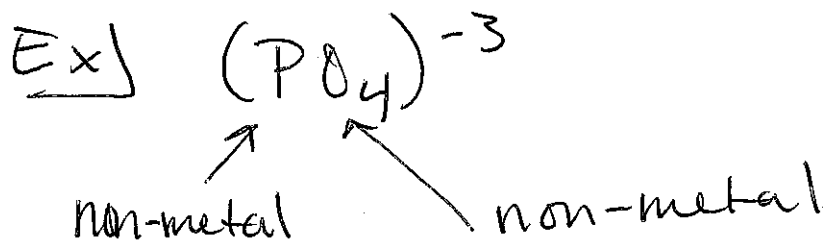


## Polyatomic ions

- made up of more than 1 atom  
 (poly = many)



- The ion itself is made of covalent bonds



- Entire ~~is~~ <sup>compound</sup> functions as an ion together

$\rightarrow$  shown w/ parentheses



- can be cations or anions

# Naming Ionic Compounds

1. Cation always comes first

→ Just write the name of the element

→ Transition metals need to have the charge written as Roman numerals after them.

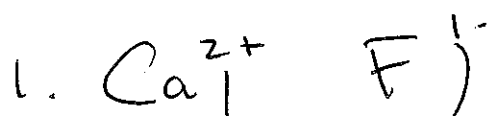
2. Name the anion BUT change the ending to -ide.

~~Ex~~ Oxygen → Oxide

Sulfur → Sulfide

→ Polyatomic ions are named without changing the ending.

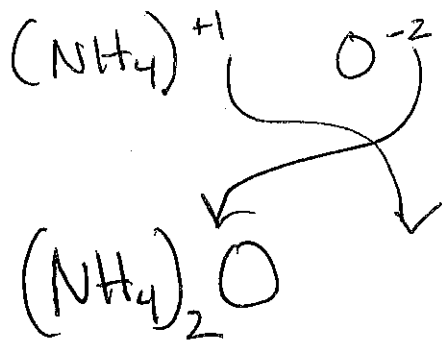
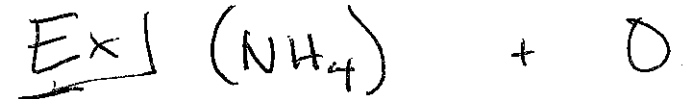
Ex | Ca + F



3. Calcium Fluoride

Ex |  $\text{V}^{+4}$  +  $\text{N}$





Ammonium Oxide

\* Special note: Just like in naming, the cation comes first in the formula, too!