Type II Ionic compounds

- has transition metals & nonmetals/polyatomic ions
  - can have more than one charge.
  - you must be told the charge - Roman Numerals

- Roman numerals

1	I	5	V	9	IX
2	II	6	VI	10	X
3	III	7	VII		
4	IV	8	VIII		

- Writing Formulas

(1) Write symbol & charge of metal
(2) Do same for the nonmetal/polyatomic ion
(3) Criss-cross charges (use parentheses if needed)

Ex) iron (II) oxide

Fe^{2+} O^{2-}

FeO ← blue-gray compound

iron (III) oxide

Fe^{3+} O^{2-}

Fe_2O_3 ← rust

chromium (III) dichromate

Cr^{3+} $Cr_2O_7^{2-}$

$Cr_2(Cr_2O_7)_3$

manganese (II) sulfate

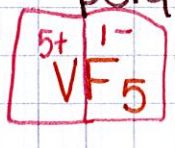
Mn^{2+} SO_4^{2-}

$MnSO_4$

- Writing Names

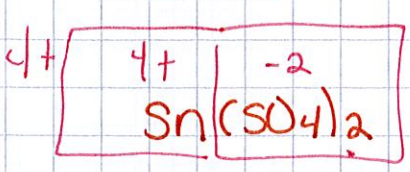
(1) write name of metal
(2) write the original charge of the metal as a Roman numeral
(3) write name of nonmetal (change ending to -ide)/ polyatomic ion

ex) VF_5



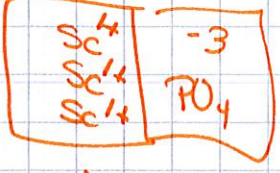
vanadium (V) fluoride

$Sn(SO_4)_2$



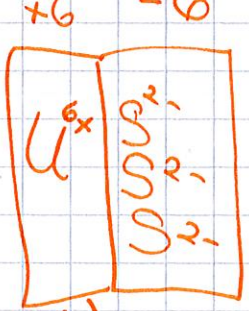
tin (IV) sulfate

Sc_3PO_4



scandium (I) phosphate

US_3

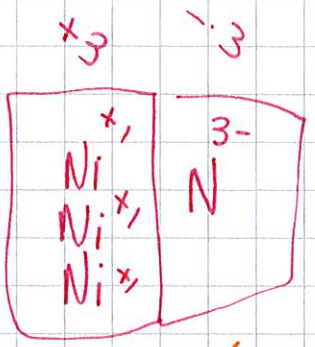


uranium (VI) sulfide

$Sn(NO_3)_4$

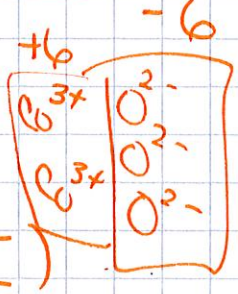
tin (IV) nitrate

Ni_3N



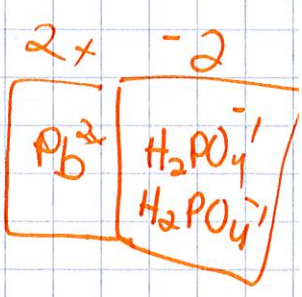
nickel (I) nitride

Co_2O_3



cobalt (III) oxide

$Pb(H_2PO_4)_2$



lead (II) dihydrogen phosphate