Multivalent Compounds

Friday, February 24, 2017 - more than I charge - referred to as transition metals - these occur after atomic #20 # when naming these compounds, you must use Roman Numerals to indicate which ion charge has been used. = | | = 2 | = 3 V = 4 V = 5 VI = 6 Naming 1. Write metal first, non-metal 2rd and change its ending to "ide" 2. Work backward from the non-metal ion charge to determine the metal ion charge and write the roman numeral in brackets after the metal. EX. \$(Auce -> Gold (1) chloride $ADE^3 + Cl^{-1} \rightarrow AUCl_3$ $AU \oplus + (l^{-1} \rightarrow AUC) \sqrt{}$ EX.#2 $Fe_2 O_3 \rightarrow Ivon (III)$ oxide fet + 0⁻² → fe202 → fe0 Fet3 + 0-2 → Fe2O3 V EX.#3 Mn Sz -> Manganese (II) sulphide $Mn \not X + S^{-2} \rightarrow Mn_2 S_2 \rightarrow MnS$ $Mn \not\times + S^{-2} \longrightarrow Mn_2 S_3$ $Mn(+) + S^{-1} \rightarrow Mn_2 Sy \rightarrow Mn Sz \checkmark$ formulas:

Steps are the same as monovalent # the roman numeral tells you which ion charge was used! EX.#4 Lead (II) Fluonide $Pb^{+2} + F^{-1} \rightarrow Pb.F_2$ 3 atoms Ex. #5 Nickel (II) sulphide $Ni^{+2} + S^{-2} \rightarrow Ni_2 S_2 \rightarrow NiS_2^2$ atoms EX. #6 Tin (III) Oxide $Sn^{+4} + 0^{-2} \longrightarrow Sn_2 0_4 \longrightarrow Sn 0_2 3$