Warm Up

Write the chemical formula or name for the following ionic compounds:

a) KI

K+ I
potassium iodide

c) calcium nitride

Ca2+ N3-

$$(a^{21} N^{3} - (a^{24} Ca^{24} N^{3} - (a^{24} N^{2})^{3})$$

b) SrCl₂
Sr²⁺ Cr Cl Strontium chloride
d) aluminum sulfide

$$A13+ S^{2} A13+ S^{2} A12S_{3}$$

Multi-Valent Metals

- can form more than one type of ion (always positive).
- include transition metals and some representative metals.

Ex.
$$Fe^{3+}$$
 and Fe^{2+} Pb²⁺ and Pb⁴⁺

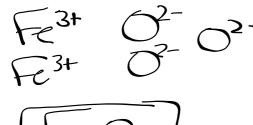
In the periodic table the most common ion is usually listed in the key.

In naming multi-valent compounds (from a formula):

- [a] name the two ions
- [b] place the charge of the metal ion in roman numerals after the metal ion.
- [c] end the anion with an -ide suffix.

Ex. Name to Formula:

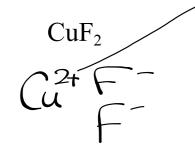
iron (III) oxide



[Fe2O3]

I,II,IV

Formula to Name



copper(11)Hooride

 Na^{+} Ca^{2+} Al^{3+}

Write the chemical formula or name for the following ionic compounds:

a) iron (II) chloride

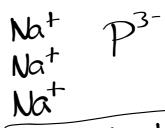
$$Fe^{2+}$$
 $C1^{-}$ $C1^{-}$ $C1^{-}$ $C1^{-}$ $C1_2$ $C1^{-}$ $C1$

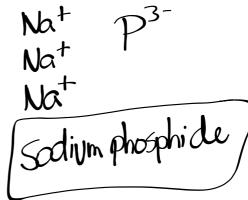
Pb+
$$O^{2-}$$
 O^{2-}
lead (IV) oxide

b) tin (II) oxide



d) Na₃P





Binary Ionic Compounds Type II

Worksheet #1,3

