

### Unit 3 - Bonding

#### Notes #7 - Mixed Compounds (Ionic and Covalent)

#### A. Naming Mixed Compounds [Ionic and Covalent]

Thinking Steps:

**MOST IMPORTANT STEP:** Figure out if the compound is ionic or covalent.

Think: *Is there a metal (or a polyatomic ion)?*

If Yes →

If No →

<b>Ionic Naming Recap</b> (See Notes #2-#3)	<b>Covalent Rules Recap</b> (See Notes #5)
→ Check for _____ and _____	→ Name the first element with prefixes (exception: _____)
→ Break apart the compound into _____ and _____ before naming.	→ Name the second element with prefixes and change ending to - _____.
→ Use roman numerals to represent the _____ of transition metal cations ONLY.	
→ Anion ends in - _____ (except for polyatomic ions)	

First decide if the compound is ionic or covalent, then name each compound.

<b>Compound Formula</b>	<b>Ionic or Covalent?</b>	<b>Compound Name (Do not use capitals)</b>
<b>Set A</b> a. $\text{Ca}(\text{ClO}_2)_2$ b. $\text{N}_2\text{O}_3$ c. $\text{Al}_2\text{S}_3$ d. $\text{SO}_3$ e. $\text{Cu}(\text{CN})_2$ f. $\text{NH}_4\text{F}$ g. $\text{PF}_5$ h. $\text{NO}$ i. $\text{H}_2\text{S}$ j. $\text{NaCl}$ k. $\text{Cu}_3\text{N}$ l. $\text{Be}_3(\text{PO}_4)_2$		

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First decide if the compound is ionic or covalent, then write the formula for each compound.

Compound Name	Ionic or Covalent?	Compound Formula (Put a "1" if there is no subscript even though we normally wouldn't)
<b>Set D</b> a. Strontium bromide b. Lithium Carbonate c. Nitrogen Trifluoride d. Iron (II) oxide e. Aluminum oxide f. Lead (II) hydroxide g. Chromium (II) fluoride h. Carbon tetrahydride i. Cesium phosphide j. Ammonium cyanide k. Magnesium sulfate l. Dihydrogen monoxide		