

Copy and complete the following table into your class notebook with the heading: Ionic Formulas

(See text Sections 6.3 & 7.1)

Key

Part 1

For each of the following compounds:

- i.) write the name of the compound given
- ii.) write the symbol for the ions the compound contains
- ii.) name the compound

	<u>Ion Symbols</u>	<u>Chemical Formula</u>
1.) <u>Example:</u> Lithium carbonate	$\text{Li}^+, \text{CO}_3^{2-}$	Li_2CO_3
2.) Cuprous sulfite	$\text{Cu}^+ \text{SO}_3^{2-}$	Cu_2SO_3
3.) Cupric sulfite	$\text{Cu}^{2+} \text{SO}_3^{2-}$	CuSO_3
4.) Lead(II) nitrite	$\text{Pb}^{2+} \text{NO}_2^-$	$\text{Pb}(\text{NO}_2)_2$
5.) Aluminum thiosulfate	$\text{Al}^{3+} \text{S}_2\text{O}_3^{2-}$	$\text{Al}_2(\text{S}_2\text{O}_3)_3$
6.) Ammonium dichromate	$\text{NH}_4^+ \text{Cr}_2\text{O}_7^{2-}$	$(\text{NH}_4)_2\text{Cr}_2\text{O}_7$
7.) Barium bromide	$\text{Ba}^{2+} \text{Br}^-$	BaBr_2
8.) Stannous hydroxide	$\text{Sn}^{2+} \text{OH}^-$	$\text{Sn}(\text{OH})_2$
9.) Chromic chromate	$\text{Cr}^{3+} \text{CrO}_4^{2-}$	$\text{Cr}_2(\text{CrO}_4)_3$
10.) Potassium permanganate		
11.) Mercurous acetate		
12.) Magnesium oxalate		
13.) Cesium bisulfate		
14.) Zinc perchlorate		
15.) Hydrogen sulfide		
16.) Manganous phosphate		
17.) Calcium hydrogen phosphate		
18.) Sodium thiosulfate		

Part 2

For each of the following compounds:

- copy the formula for the compound given
- write the symbols for the ions in the compound
- name the compound

	<u>Ion Symbols</u>	<u>Compound Name</u>
<u>Example:</u> SrSO ₄	<u>Sr²⁺ , SO₄²⁻</u>	<u>Strontium sulfate</u>
19.) ZnBr ₂	<u>Zn²⁺ Br⁻</u>	<u>Zinc bromide</u>
20.) Ag ₂ S	<u>Ag⁺ S²⁻</u>	<u>Silver sulfide</u>
21.) K ₃ PO ₄	<u>K⁺ PO₄³⁻</u>	<u>Potassium phosphate</u>
22.) Zn(ClO ₃) ₂	<u>Zn²⁺ ClO₃⁻</u>	<u>Zinc chlorate</u>
23.) NH ₄ C ₂ H ₃ O ₂		
24.) Ca ₃ (PO ₄) ₂		
25.) Sn(NO ₃) ₄		
26.) MgSO ₄		

Part 3

For each of the following compounds:

- copy the formulas for the ions given
- write the chemical formula for the compound that would form
- name the compound

	<u>Chemical Formula</u>	<u>Compound Name</u>
<u>Example:</u> Pb ⁴⁺ , OH ⁻	<u>Pb(OH)₄</u>	<u>Plumbic or Lead(IV) hydroxide</u>
27.) Na ⁺ , F ⁻	<u>NaF</u>	<u>Sodium fluoride</u>
28.) K ⁺ , S ²⁻	<u>K₂S</u>	<u>Potassium sulfide</u>
29.) Ba ²⁺ , Br ⁻	<u>BaBr₂</u>	<u>Barium bromide</u>
30.) Al ³⁺ , O ²⁻	<u>Al₂O₃</u>	<u>Aluminum oxide</u>
31.) Ca ²⁺ , OH ⁻		
32.) NH ₄ ⁺ , P ³⁻		
33.) Cu ⁺ , NO ₃ ⁻		
34.) Cu ²⁺ , NO ₃ ⁻		
35.) Fe ³⁺ , SO ₄ ²⁻		
36.) Li ⁺ , CO ₃ ²⁻		