

Name: _____ Block: _____ Date: _____

Nomenclature Review

Combine the following ions, (a.) record the formula and (b.) write the name of the compound formed.
(1/2 pt per box, 12 pts total)

		Br^{1-}	CO_3^{2-}	PO_4^{3-}
Zn^{2+}	a.	ZnBr_2	ZnCO_3	$\text{Zn}_3(\text{PO}_4)_2$
	b.	zinc bromide	zinc carbonate	zinc phosphate
Mn^{4+}	a.	MnBr_4	$\text{Mn}(\text{CO}_3)_2$	$\text{Mn}_3(\text{PO}_4)_4$
	b.	manganese (IV) bromide	manganese (IV) carbonate	manganese (IV) phosphate
Fe^{3+}	a.	FeBr_3	$\text{Fe}_2(\text{CO}_3)_3$	$\text{Fe}(\text{PO}_4)$
	b.	iron (III) bromide	iron (III) carbonate	iron (III) phosphate
Li^{1+}	a.	LiBr	Li_2CO_3	Li_3PO_4
	b.	lithium bromide	lithium carbonate	lithium phosphate

Complete the following chart for the given components of the compound. (1/2 pt per box/ 12 pts total)

Example:			Formula	Name
Sodium	Chlorine	$\text{Na} = +1 \text{ Cl} = -1$	NaCl	Sodium chloride
Ammonium	Nitrate	$\text{N} = -3 \text{ H} = +1 \text{ NH}_4$ $\text{N} = +5 \text{ O} = -2 \text{ NO}_3$	NH_4NO_3	ammonium nitrate
Lead (II)	Phosphorous	$\text{Pb} = +2 \text{ P} = -3$	Pb_3P_2	lead (II) phosphide
Silver	Chlorite	$\text{Ag} = +1 \text{ Cl} = +3$ $\text{O} = -2$	AgClO_2	silver chlorite
Calcium	Bicarbonate	$\text{Ca} = +2 \text{ H} = +1$ $\text{C} = +4 \text{ O} = -2$	$\text{Ca}(\text{HCO}_3)_2$	calcium bicarbonate
Chromium (III)	Sulfite SO_3	$\text{Cr} = +3 \text{ S} = +4$ $\text{O} = -2$	$\text{Cr}_2(\text{SO}_3)_3$	chromium (III) sulfite
Magnesium	Oxygen	$\text{Mg} = +2 \text{ O} = -2$	MgO	magnesium oxide

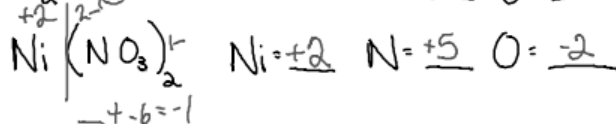
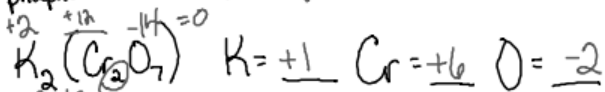
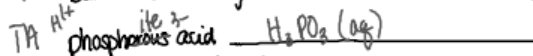
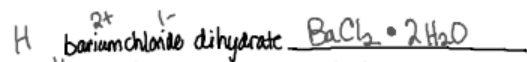
Record the names of the following compounds. (3 pts each)

- M 28. $\text{Al}_2(\text{CO}_3)_3$ aluminum carbonate
 NM 29. CO_2 carbon dioxide
 MB 30. Fe_2O_3 iron (III) oxide
 NM 32. SF_2 sulfur difluoride
 BA 33. $\text{HCl}(\text{aq})$ hydrochloric acid
 MB 35. CoSO_4 cobalt (II) sulfate
 MB 36. CuCl copper (I) chloride
 TA 38. $\text{H}(\text{C}_2\text{H}_3\text{O}_2)(\text{aq})$ acetic acid

Record the formula for the following compounds. (3 pts each)

- NM 39. Sulfur trioxide SO_3
 MB 40. Copper (II) oxide CuO
 NA 41. Sodium sulfate $\text{Na}_2(\text{SO}_4)$
 MB 43. Mercury (II) nitrite $\text{Hg}(\text{NO}_2)_2$
 NM 44. Dinitrogen pentoxide N_2O_5
 MA 45. Calcium phosphate $\text{Ca}_3(\text{PO}_4)_2$
 BA 48. Hydrobromic acid $\text{HBr}(\text{aq})$
 BA 50. Hydroiodic acid $\text{HI}(\text{aq})$

MA = grp A metal
 MB = grp B metal
 TA = ternary acid
 BA = binary acid
 NM = non metals
 H = hydrate

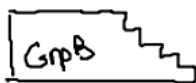


You will be able to:

① write a balanced chemical formula

② Complete the nomenclature for:

- ionic compounds $\left\{ \begin{array}{l} \text{group A metals } \dagger \text{ Al}^{3+}, \text{Ag}^{1+}, \text{Cd}^{2+}, \text{Zn}^{2+}, \text{W}^{6+} \\ \text{group B metals} \rightarrow \text{require Roman Numeral} \\ \text{for oxidation value} \end{array} \right.$



- binary covalent compounds - 2 non-metals $\left\{ \begin{array}{l} \text{2} \\ \text{3} \end{array} \right.$
Subscript = prefix

- Acids $\left\{ \begin{array}{l} \text{binary acid H + non-metal (aq) hydro-ic acid} \\ \text{ternary acid H + polyatomic (aq) ate} \rightarrow \text{ic} \\ \text{ite} \rightarrow \text{ous} \end{array} \right.$

- hydrates - name metallic compound followed by prefix + hydrate

* if the water is removed it is called anhydrous

mono	hexa
di	hepta
tri	octa
tetra	nona
penta	deca