Name Key Date__/__/__ Block____

FORMULA WRITING AND NOMECLATURE TEST (Ionics, covalents, and acids)

REVIEW - Write the name or formula in the box next to each

MC	1. Tin (II) acetate +2 -1	$Sn(C_2H_3O_2)_2$
MC	2. Silver carbonate +1 -2	$Ag_2(CO_3)$
NMC	3. Tetranitrogen pentoxide	N_4O_5
BA	4. Hydroiodic acid H +1 I -1	$HI\ (aq)$
MC	5. Gallium sulfide +3 -2	Ga_2S_3
NMC	6. pentane	C_5H_{12}
NMC	7. Tricarbon hexafluoride	C_3F_6
TA	8. Bromic acid H +1 bromate -1	$HBrO_3\ (aq)$
MC	9. Chromium (III) bromide +3 -1	$CrBr_3$
MC	10. Ammonium sulfate +1 -2	$(NH_4)_2(SO_4)$
TA	11. Nitrous acid H +1 Nitrite -1	$HNO_2\ (aq)$
NMC	12. Phosphorous hexafluoride	PF_6
NMC	13. Heptasulfur trioxide	S_7O_3
MC	14. Magnesium chloride +2 -1	$MgCl_2$
MC	15. Sodium oxide +1 -2	Na_2O
NMC	16. 3-hexyne	C_6H_{10}
BA	17. Hydrofluoric acid +1 -1	$HF\ (aq)$
MC	18. Aluminum carbonate +3 -2	$Al_2(CO_3)_3$
MC	19. Lead (IV) oxide +4 -2	PbO_2
BA	20. Hydrosulfuric acid +1 -2	$H_2S\ (aq)$
NMC	21. Tetraiodine nonachloride	I_4Cl_9
MC	22. Strontium phosphide +2 -3	Sr_3P_2
MC	23. Calcium bicarbonate +2 -1	$Ca(HCO_3)_2$
MC	24. Nickel (II) acetate +2 -1	$Ni(C_2H_3O_2)_2$
MC	25. Barium carbide +2 -4	Ba_2C

* Carbon - when carbide is -4

MC	26. H_2SO_3	hydrogen sulfite (notice no (aq))
NMC	27. C_2H_2	ethyne
MC	28. $Be(NO_3)_2$	beryllium nitrate
NMC	29. NO_4	nitrogen tetraoxide
NMC	30. P_3Cl_5	triphosphorous pentachloride
MC	31. AgN (+2 +2 = 0)	Silver nitride
*GpB MC	32. $Hg(NO_3)_2^{+1}$	mercury (II) nitrate
	* Mercury has multiple charges possible – you must use Roman #	
MC	33. $Li_2(CO_3)$	lithium carbonate
MC	34. $Ba(MnO_4)_2$	barium permanganate
BA	35. H_3As (aq)	hydroarsenic acid
NMC	36. S_5O_8	pentasulfur octaoxide
MC	37. $Al_2(SO_3)_3$	aluminum sulfite
GpB MC	38. Cu_2S (+2 -2, +1)	Copper (I) sulfide
BA	39. HI (aq)	hydroiodic acid
MC	40. Cs_2S	cesium sulfide
MC	41. $Mg(Cr_2O_7)$	magnesium dichromate
TA	42. HNO_2 (aq) (nitrite → ous)	nitrous acid
MC	43. CdF_2	Cadmium fluoride
NMC	44. H_2N_2	dihydrogen dinitride
NMC	45. BF_3	boron trifluoride
MC	46. Rb_3P	Rubidium phosphide
NMC	47. C_4H_{10}	butane
NMC	48. P_3Br_8	triphosphorous octabromide
NMC	49. N_2O_5	dinitrogen pentaoxide
TA	50. $HClO_4$ (aq) (perchlorate → ic)	perchloric acid

Things to Remember:

metallic compound - no prefixes, create formula based on charges.
* if Group B metal (or metal known to have multiple charges) determine the charge of the metal and use roman numeral in name.

nonmetallic compound - use prefixes to represent the subscripts - be sure to study the prefixes-every year silly points are lost because students don't know prefixes!!

binary acids - hydrogen + nonmetal
name by hydro—ic acid
formula by charges a (aq)

ternary acids - hydrogen + polyatomic ion
name by polyatomic ion only!!
ate → ic ite → ous ide → ic
formula by charges

Hydrate - name metallic compound as usual then prefix + hydrate for # of water
formula by charges then "velcrodot" and # H_2O

Polyatomic Ion Families) –

★ Charges remain the same for all

per- ate – add another oxygen

- ate memory work

- ite – subtract another oxygen

hypo- ite – subtract another oxygen (2 less than -ate)

example:

perchlorate	ClO_4^{-1}
chlorate	ClO_3^{-1}
chlorite	ClO_2^{-1}
hypo chlorite	ClO^{-1}