

Group 1. Name the following compounds.

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|--|--|--|---|
| 1. HCl | Hydrogen chloride | 19. H ₃ PO ₄ | phosphoric acid or hydrogen phosphate |
| 2. KOH | potassium hydroxide | 20. CsOH | Cesium hydroxide |
| 3. HgOH | Mercury (I) hydroxide | 21. Li ₂ O | Lithium oxide |
| 4. KCl | potassium chloride | 22. Ca(OH) ₂ | Calcium hydroxide |
| 5. FeCl ₃ | Iron (III) chloride | 23. CaBr ₂ | Calcium bromide |
| 6. HNO ₃ | nitric acid | 24. Fe ₂ O ₃ | iron (III) oxide |
| 7. NH ₄ OH | ammonium hydroxide | 25. H ₂ SO ₄ | hydrogen sulfate or sulfuric acid |
| 8. Cu ₂ O | copper (I) oxide | 26. FeCO ₃ | iron (II) carbonate |
| 9. Al ₂ (SO ₄) ₃ | aluminum sulfate | 27. SO ₃ | sulfur trioxide (NOT SULFITE, sulfite has a charge) |
| 10. N ₂ O ₅ | dinitrogen pentoxide | 28. Ba(BrO ₃) ₂ | barium bromate |
| 11. NaOH | Sodium hydroxide | 29. Al(OH) ₃ | aluminum hydroxide |
| 12. CO ₂ | Carbon dioxide | 30. HClO ₄ | hydrogen perchlorate |
| 13. HF | hydrogen fluoride or hydrofluoric acid | 31. NaC ₂ H ₃ O ₂ | sodium acetate |
| 14. Pb(OH) ₂ | lead (II) hydroxide | 32. Na ₂ SO ₃ | sodium sulfite |
| 15. NH ₄ NO ₃ | ammonium nitrate | 33. H ₂ CO ₃ | carbonic acid or hydrogen carbonate |
| 16. NaHCO ₃ | sodium hydrogen carbonate | 34. HFO ₂ | fluorous acid |
| 17. HgO | mercury (II) oxide | 35. NH ₄ IO ₃ | ammonium iodate |
| 18. Zn(NO ₂) ₂ | zinc nitrite | 36. LiH | lithium hydride |

37. CO Carbon monoxide
38. MgBr₂ magnesium bromide
39. SnBr₂ tin (II) bromide
40. N₂O dinitrogen monoxide
41. NH₄F ammonium fluoride
42. AsCl₅ arsenic pentachloride
43. KHCO₃ potassium hydrogen carbonate
44. K₂O potassium oxide
45. Ba₃As₂ barium arsenide
46. ZnO zinc oxide
47. NaClO sodium hypochlorite
48. SrS strontium sulfide
49. Al(BrO₃)₃ aluminum bromate
50. SbF₃ antimony (III) fluoride
51. Pd(CN)₂ palladium cyanide

52. ZnSiO₃

zinc silicate

53. Mg(C₂H₃O₂)₂

magnesium acetate

54. Ca(MnO₄)₂

calcium permanganate

55. Be(NO₃)₂

beryllium nitrate

56. NiSeO₄

57. RaBr₂

Radium bromide

58. NaMnO₄

Sodium permanganate

59. PbI₂

lead (II) iodide

60. CaS

calcium sulfide

61. Bi₂Te₃

dibismuth tritelluride

62. KClO₄

potassium perchlorate

63. HgBr₂

mercury(II) bromide

64. CoSi

65. P₃N₅

Triphosphorus pentanitride

66. CuSO₃

Copper(II) sulfite

67. FePO₄

Iron(III) phosphate

68. PbTe

lead(II) telluride

69. HgNO₃

mercury(II) nitrate

70. K₂SiO₃

potassium silicate

71. AgC₂H₃O₂

silver acetate

72. TeI₄

Tellurium tetraiodide

73. Zn₃(PO₄)₂

zinc phosphate

74. Ag₂S

silver sulfide

75. Cd(HCO₃)₂

cadmium(II) hydrogen carbonate

76. ZnF₂

zinc fluoride

Formulas and Nomenclature (continued)

Name _____

Date _____

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|--|---|
| 77. H_2SO_3 <i>Sulfurous acid</i> | 89. $KAl(SO_4)_2$ <i>potassium aluminum sulfate</i> |
| 78. $Ba(OH)_2$ <i>Barium hydroxide</i> | 90. KUO_4 _____ |
| 79. PbS <i>lead (II) sulfide</i> | 91. $SmCl_3$ _____ |
| 80. NaH_2PO_4 <i>sodium dihydrogen phosphate</i> | 92. K_2S_5 _____ |
| 81. $NH_4C_2H_3O_2$ <i>ammonium acetate</i> | 93. $Fe_3[Fe(CN)_6]_2$ _____ |
| 82. Ag_3N <i>silver nitride</i> | 94. $PtCl_2$ <i>Platinum (II) chloride</i> |
| 83. SiI_4 <i>silicon tetraiodate</i> | 95. PtI_4 <i>Platinum (IV) iodide</i> |
| 84. $ZnCO_3$ <i>zinc carbonate</i> | 96. NH_3 <i>nitrogen triiodide</i> |
| 85. H_3PO_3 <i>phosphoric acid</i> | 97. $MoCl_5$ _____ |
| 86. SnI_4 <i>tin (IV) iodide</i> | 98. $La(NO_3)_3$ _____ |
| 87. $Pb(NO_3)_2$ <i>lead (II) nitrate</i> | 99. Dy_2O_3 <i>vanadium (V) oxide</i> |
| 88. NaF <i>sodium fluoride</i> | 100. V_2O_5 _____ |

Group II. Write the correct formula for each of the following compounds.

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| 1. sulfuric acid <i>H_2SO_4</i> | 5. calcium oxide <i>CaO</i> |
| 2. sodium hydroxide <i>$NaOH$</i> | 6. hydrosulfuric acid <i>H_2S</i> |
| 3. sodium bromide <i>$NaBr$</i> | 7. lithium sulfate <i>Li_2SO_4</i> |
| 4. barium hydroxide <i>$Ba(OH)_2$</i> | 8. carbon monoxide <i>CO</i> |

(continued)



Chemistry Problems

- | | | | |
|-----------------------------|----------------|-----------------------------|-------------------|
| 9. manganese dioxide | MnO_2 | 29. hydrogen acetate | $HC_2H_3O_2$ |
| 10. sulfur dioxide | SO_2 | 30. copper(II) nitrate | $Cu(NO_3)_2$ |
| 11. iron(II) sulfate | $FeSO_4$ | 31. nitrogen dioxide | NO_2 |
| 12. hypochlorous acid | $HClO$ | 32. phosphorus trichloride | PCl_3 |
| 13. potassium permanganate | $KMnO_4$ | 33. sodium phosphate | Na_3PO_4 |
| 14. silver chloride | $AgCl$ | 34. potassium carbonate | K_2CO_3 |
| 15. copper(II) hydroxide | $Cu(OH)_2$ | 35. phosphoric acid | H_3PO_4 |
| 16. ammonium sulfide | $(NH_4)_2S$ | 36. lead(IV) chloride | $PbCl_4$ |
| 17. nickel(II) bromide | $NiBr_2$ | 37. tin(II) bromide | $SnBr_2$ |
| 18. iron(II) oxide | FeO | 38. ammonium hydroxide | NH_4OH |
| 19. bromic acid | $HBrO_3$ | 39. periodic acid | <u> </u> |
| 20. ammonium bisulfate | NH_4HSO_4 | 40. iron(II) hydroxide | $Fe(OH)_2$ |
| 21. mercury(I) sulfate | Hg_2SO_4 | 41. carbon dioxide | CO_2 |
| 22. iron(III) oxide | Fe_2O_3 | 42. dinitrogen pentoxide | N_2O_5 |
| 23. magnesium phosphate | $Mg_3(PO_4)_2$ | 43. silver oxide | Ag_2O |
| 24. nickel(II) bicarbonate | $Ni(HCO_3)_2$ | 44. aluminum nitride | AlN |
| 25. zinc hydroxide | $Zn(OH)_2$ | 45. manganese(II) hydroxide | $Mn(OH)_2$ |
| 26. hydriodic acid | HI | 46. ammonium carbonate | $(NH_4)_2CO_3$ |
| 27. diphosphorous pentoxide | P_2O_5 | 47. aluminum oxide | Al_2O_3 |
| 28. aluminum phosphate | $AlPO_4$ | 48. antimony pentasulfide | Sb_2S_5 |

Formulas and Nomenclature (continued)

Name _____

Date _____

- 49. barium carbonate $BaCO_3$
- 50. calcium phosphate $Ca_3(PO_4)_2$
- 51. cesium carbonate Cs_2CO_3
- 52. potassium silicate K_2SiO_3
- 53. silver chromate Ag_2CrO_4
- 54. magnesium sulfite $MgSO_3$
- 55. chromium(III) phosphide CrP
- 56. cobalt(III) nitrate $Co(NO_3)_3$
- 57. zinc iodide ZnI_2
- 58. iron(II) fluoride FeF_2
- 59. nickel(II) selenide $NiSe$
- 60. sodium bisulphate $NaHSO_4$
- 61. lithium oxide Li_2O
- 62. copper(I) carbonate Cu_2CO_3
- 63. strontium carbonate $SrCO_3$
- 64. mercury(I) sulfate Hg_2SO_4
- 65. potassium dichromate $K_2Cr_2O_7$
- 66. manganese(II) oxide MnO
- 67. nickel(II) chloride $NiCl_2$

- 68. lead(II) acetate $Pb(C_2H_3O_2)_2$
- 69. mercury(II) nitride Hg_3N_2
- 70. lead(II) hydroxide $Pb(OH)_2$
- 71. tin(IV) chloride $SnCl_4$
- 72. selenium tetrafluoride SeF_4
- 73. phosphorus pentabromide PBr_5
- 74. mercury(I) iodate Hg_2IO_4
- 75. iron(III) sulfate $Fe_2(SO_4)_3$
- 76. nickel(II) sulfate $NiSO_4$
- 77. silicon dioxide SiO_2
- 78. lithium phosphate Li_3PO_4
- 79. potassium antimonide
- 80. nitric acid HNO_3
- 81. magnesium nitride Mg_3N_2
- 82. cadmium nitrite $Cd(NO_2)_2$
- 83. zinc acetate $Zn(C_2H_3O_2)_2$
- 84. hydrogen nitrite HNO_2
- 85. strontium hydroxide $Sr(OH)_2$
- 86. lead(II) sulfate $PbSO_4$

Name _____

Formulas and Nomenclature (continued)

Date _____

87. aluminum bisulfate $Al(HSO_4)_2$
88. disodium hydrogen phosphate Na_2HPO_4
89. ammonium aluminum sulfate NH_4AlSO_4
90. copper(II) sulfate ~~pentahydrate~~ $CuSO_4$
91. lead(II) nitrate $Pb(NO_3)_2$
92. gold(III) chloride $AuCl_3$
93. tin(II) hydroxide $Sn(OH)_2$
94. hydrogen carbonate H_2CO_3
95. ammonium bromate
96. scandium bromide $ScBr$
97. bromine iodide BrI
98. rubidium carbonate Rb_2CO_3
99. potassium thiosulfate
100. potassium arsenate
101. silver potassium cyanide
102. sodium cyanate
103. permanganic acid $HMnO_4$
104. osmium tetrachloride $OsCl_4$
105. lanthanum oxide
106. germanium tetrachloride $GeCl_4$
107. erbium acetate
108. ytterbium oxide
109. calcium hydride $Ca(OH)_2$
110. iron(II) ferricyanide