

Inorganic Naming Worksheet

A) Write the formulas for the following names:

1. ammonium sulfite $(\text{NH}_4)_2\text{SO}_3$
2. sodium nitrite NaNO_2
3. cupric bromate $\text{Cu}(\text{BrO}_3)_2$
4. aluminum sulfate $\text{Al}_2(\text{SO}_4)_3$
5. potassium nitrate KNO_3
6. ^{F₂²⁺} ferrous bicarbonate $\text{Fe}(\text{HCO}_3)_2$
7. lead (II) phosphate $\text{Pb}_3(\text{PO}_4)_2$
8. diphosphorus pentoxide P_2O_5
9. calcium fluoride CaF_2
10. nickel (II) nitrite $\text{Ni}(\text{NO}_2)_2$
11. silver cyanide AgCN
12. ammonium sulfate $(\text{NH}_4)_2\text{SO}_4$
13. zinc sulfide ZnS
14. tin(II) phosphate $\text{Sn}_3(\text{PO}_4)_2$
15. antimony (III) carbonate $\text{Sb}_2(\text{CO}_3)_3$
16. silver sulfate Ag_2SO_4
17. magnesium hydroxide $\text{Mg}(\text{OH})_2$
18. aluminum carbonate $\text{Al}_2(\text{CO}_3)_3$
19. nickel (II) acetate $\text{Ni}(\text{CH}_3\text{COO})_2$
20. sodium dichromate $\text{Na}_2\text{Cr}_2\text{O}_7$
21. ³⁺ chromic bisulfate $\text{Cr}(\text{HSO}_4)_3$
22. potassium permanganate KMnO_4
23. silver perchlorate AgClO_4
24. potassium phosphate K_3PO_4
25. nickel(II) phosphate $\text{Ni}_3(\text{PO}_4)_2$
26. lead(II) chlorite $\text{Pb}(\text{ClO}_2)_2$
27. iodic acid HIO_3
28. iron (II) bisulfite $\text{Fe}(\text{HSO}_3)_2$
29. magnesium nitrate $\text{Mg}(\text{NO}_3)_2$
30. iron(III) chromate $\text{Fe}_2(\text{CrO}_4)_3$
31. iron(II) chromate FeCrO_4
32. copper (II) hydroxide $\text{Cu}(\text{OH})_2$
33. cuprous carbonate Cu_2CO_3
34. calcium chlorate $\text{Ca}(\text{ClO}_3)_2$
35. ammonium oxide $(\text{NH}_4)_2\text{O}$
36. aluminum perchlorate $\text{Al}(\text{ClO}_4)_3$
37. zinc bicarbonate $\text{Zn}(\text{HCO}_3)_2$
38. sodium phosphate Na_3PO_4
39. silver hypochlorite AgClO
40. ammonium phosphate $(\text{NH}_4)_3\text{PO}_4$
41. ferrous chlorite $\text{Fe}(\text{ClO}_2)_2$
42. potassium sulfide K_2S

43. tin(IV) bromide SnBr_4
44. lithium chromate Li_2CrO_4
45. magnesium bisulfate $\text{Mg}(\text{HSO}_4)_2$
46. calcium sulfate dihydrate $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$
47. aluminum acetate $\text{Al}(\text{CH}_3\text{COO})_3$
48. calcium chloride dihydrate $\text{CaCl}_2 \cdot 2\text{H}_2\text{O}$
49. barium chromate BaCrO_4
50. barium chloride dihydrate $\text{BaCl}_2 \cdot 2\text{H}_2\text{O}$
51. sulfurous acid H_2SO_3
52. sodium oxalate $\text{Na}_2\text{C}_2\text{O}_4$
53. zinc bisulfite $\text{Zn}(\text{HSO}_3)_2$
54. sodium sulfite Na_2SO_3
55. cobaltous sulfate CoSO_4
42+
56. silver phosphate Ag_3PO_4
57. sodium hypochlorite NaClO
58. ammonium chromate $(\text{NH}_4)_2\text{CrO}_4$
59. barium carbonate BaCO_3
60. calcium iodide CaI_2
61. cupric sulfate CuSO_4
42+
62. cuprous chloride CuCl
63. zinc phosphate $\text{Zn}_3(\text{PO}_4)_2$
64. sodium nitrite NaNO_2
65. silver oxide Ag_2O
66. nickel (II) bromide NiBr_2
67. magnesium oxide MgO
68. lithium hypochlorite LiClO
69. oxygen difluoride OF_2
70. cobalt(II) hydrogen sulfate $\text{Co}(\text{HSO}_4)_2$
71. acetic acid CH_3COOH or $\text{C}_2\text{H}_4\text{O}_2$
72. barium hypochlorite $\text{Ba}(\text{ClO})_2$
73. ammonium hydroxide NH_4OH
74. cobalt(II) iodide CoI_2
75. chromium(II) bicarbonate $\text{Cr}(\text{HCO}_3)_2$
76. sodium hydroxide NaOH
77. silver nitrate AgNO_3
78. mercury(II) nitrate $\text{Hg}(\text{NO}_3)_2$
79. hydrochloric acid HCl
80. aluminum bisulfite $\text{Al}(\text{HSO}_3)_3$
81. cobalt(III) hydrogen sulfate $\text{Co}(\text{HSO}_4)_3$
82. phosphorus pentabromide PBr_5
83. nickel(II) chloride hexahydrate $\text{NiCl}_2 \cdot 6\text{H}_2\text{O}$
84. ammonium sulfate $(\text{NH}_4)_2\text{SO}_4$
85. iron(III) hydrogen carbonate $\text{Fe}(\text{HCO}_3)_3$
86. mercury(I) hydrogen phosphate Hg_2HPO_4
monoc
87. copper(II) sulfate pentahydrate $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$
88. sodium acetate NaCH_3COO
89. zinc sulfite ZnSO_3
90. silver bicarbonate AgHCO_3
91. potassium iodide KI
92. lead(IV) chlorite $\text{Pb}(\text{ClO}_2)_4$
93. lead(II) nitrite $\text{Pb}(\text{NO}_2)_2$
94. potassium dichromate $\text{K}_2\text{Cr}_2\text{O}_7$

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|------|---------------------------------|-------------------|------|----------------------|---------------|
| 95. | magnesium carbonate | $MgCO_3$ | 109. | nitric acid | HNO_3 |
| 96. | calcium bicarbonate | $Ca(HCO_3)_2$ | 110. | potassium chloride | KCl |
| 97. | aluminum hydroxide | $Al(OH)_3$ | 111. | copper (I) bisulfate | $CuHSO_4$ |
| 98. | ammonium chromate | $(NH_4)_2CrO_4$ | 112. | zinc permanganate | $Zn(MnO_4)_2$ |
| 99. | nitrogen triiodide | NI_3 | 113. | hydrobromic acid | HBr |
| 100. | sulfur trioxide | SO_3 | 114. | hydrocyanic acid | HCN |
| 101. | ammonium dichromate | $(NH_4)_2Cr_2O_7$ | 115. | sulfurous acid | H_2SO_3 |
| 102. | iron (III) bicarbonate | $Fe(HCO_3)_3$ | 116. | sulfuric acid | H_2SO_4 |
| 103. | ammonium perchlorate | NH_4ClO_4 | 117. | copper(I) sulfate | Cu_2SO_4 |
| 104. | iron(II) chromate | $FeCrO_4$ | 118. | chromium(III) oxide | Cr_2O_3 |
| 105. | zinc sulfate | $ZnSO_4$ | 119. | aluminum oxide | Al_2O_3 |
| 106. | boron ^{mono} phosphide | BP | 120. | barium carbonate | $BaCO_3$ |
| 107. | acetic acid | CH_3COOH | 121. | perchloric acid | $HClO_4$ |
| 108. | barium bisulfite | $Ba(HSO_3)_2$ | 122. | lead(II) oxide | PbO |

B) Write the names for the following formulas:

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|------|-----------------|----------------------------------|------|---------------|-----------------------------|
| 123. | $NaMnO_4$ | Sodium permanganate | 132. | NaH_2PO_4 | Sodium dihydrogen phosphate |
| 124. | H_3PO_4 | Phosphoric acid | 133. | Hg_2Cl_2 | Mercury(I) chloride |
| 125. | $LiMnO_4$ | Lithium permanganate | 134. | $Fe(NO_2)_2$ | Iron(II) nitrite |
| 126. | $Fe_2(HPO_4)_3$ | Iron(III) monohydrogen phosphate | 135. | $Cu(OH)_2$ | Copper(II) hydroxide |
| 127. | Na_2CO_3 | Sodium carbonate | 136. | Na_3PO_4 | Sodium phosphate |
| 128. | $MgCO_3$ | Magnesium carbonate | 137. | $Sn(HCO_3)_4$ | Tin(IV) bicarbonate |
| 129. | $Sn_3(PO_4)_4$ | Tin(IV) phosphate | 138. | KF | Potassium fluoride |
| 130. | HNO_3 | Nitric acid | 139. | $CaSO_4$ | Calcium sulphate |
| 131. | $NaBrO_3$ | Sodium bromate | 140. | HCl | Hydrochloric acid |

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| 141. SbCl_3 Antimony trichloride | 167. CrCl_3 Chromium(III) chloride |
| 142. NH_4Cl Ammonium chloride | 168. FeCl_3 Iron(III) chloride |
| 143. NH_4NO_3 Ammonium nitrate | 169. $\text{Na}_2\text{C}_2\text{O}_4$ Sodium oxalate |
| 144. IF_5 Iodine pentafluoride | 170. PbSO_4 Lead(II) sulphate |
| 145. NaHCO_3 Sodium bicarbonate | 171. KrF_2 Krypton difluoride |
| 146. HgF_2 Mercury(II) fluoride | 172. NaCl Sodium chloride |
| 147. KCl Potassium chloride | 173. AlBr_3 Aluminum bromide |
| 148. KMnO_4 Potassium permanganate | 174. $\text{Ba}(\text{NO}_3)_2$ Barium nitrate |
| 149. KClO_4 Potassium perchlorate | 175. BrF_5 Bromine pentafluoride |
| 150. ZnO Zinc oxide | 176. P_4O_6 Tetraphosphorus hexoxide |
| 151. NH_4MnO_4 Ammonium permanganate | 177. PCl_3 Phosphorus trichloride |
| 152. Na_3BO_3 Sodium borate | 178. PCl_5 Phosphorus pentachloride |
| 153. $\text{Ba}_3(\text{PO}_4)_2$ Barium phosphate | 179. $\text{Co}_2(\text{SO}_3)_3$ Cobalt(III) sulphite |
| 154. Fe_2O_3 Iron(III) oxide | 180. N_2O_3 Dinitrogen trioxide |
| 155. CoF_3 Cobalt(III) fluoride | 181. $\text{Sn}_3(\text{PO}_4)_2$ Tin(II) phosphate |
| 156. H_2CO_3 Carbonic acid | 182. H_2O_2 Dihydrogen dioxide (hydrogen peroxide) |
| 157. K_2SO_4 Potassium sulphate | 183. $\text{Be}(\text{OH})_2$ Beryllium hydroxide |
| 158. NaHSO_4 Sodium bisulphate | 184. $\text{Sr}(\text{HCO}_3)_2$ Strontium bicarbonate |
| 159. PF_5 Phosphorus pentafluoride | 185. $\text{Sr}(\text{OH})_2$ Strontium hydroxide |
| 160. Ag_2O Silver oxide | 186. P_4S_{10} Tetraphosphorus decasulphide |
| 161. Cu_2CrO_4 Copper(I) chromate | 187. Hg_2O_2 Mercury(I) oxide |
| 162. $\text{Ca}(\text{ClO}_4)_2$ Calcium perchlorate | 188. $\text{Hg}_2(\text{OH})_2$ Mercury(I) hydroxide |
| 163. $\text{HC}_2\text{H}_3\text{O}_2$ Acetic acid | 189. NH_4F Ammonium fluoride |
| 164. LiI Lithium iodide | 190. XeF_6 Xenon hexafluoride |
| 165. HBr Hydrobromic acid | 191. $\text{K}_2\text{Cr}_2\text{O}_7$ Potassium dichromate |
| 166. $\text{Hg}_2(\text{ClO})_2$ Mercury(I) hypochlorite | 192. NH_4OH Ammonium hydroxide |

193. $(\text{NH}_4)_3\text{PO}_4$ Ammonium phosphate
194. N_2O_5 Dinitrogen pentoxide
195. SnCrO_4 Tin(II) chromate
196. Al_2O_3 Aluminum oxide
197. CuCO_3 Copper(II) carbonate
198. KCH_3COO Potassium acetate
199. CoCl_3 Cobalt(III) chloride
200. Hg_3N_2 Mercury(II) nitride
201. SiF_4 Silicon tetrafluoride
202. Sb_2O_5 Antimony(V) oxide
or Diarsimony pentoxide
203. LiH Lithium hydride
204. SF_6 Sulphur hexafluoride
205. KOH Potassium hydroxide
206. K_2O Potassium oxide
207. H_2SO_4 Sulphuric acid

C) Write the formulas for the following names:

208. lithium oxide Li_2O
 $\text{Li}^+ \text{O}^{2-}$
209. xenon trioxide XeO_3
210. gold(I) chloride AuCl
211. gold(I) cyanide AuCN
212. sodium oxide Na_2O
213. potassium chlorate KClO_3
214. nickel (II) fluoride NiF_2
215. potassium cyanide KCN
216. manganese dioxide MnO_2
217. osmium tetrachloride OsCl_4
218. rubidium carbonate Rb_2CO_3
219. trisulfur dinitride S_3N_2
220. nitrogen trichloride NCl_3
221. vanadium(V) oxide V_2O_5
222. selenium tetrafluoride SeF_4
223. stannous hypochlorite $\text{Sn}(\text{ClO})_2$
224. tellurium hexafluoride TeF_6
225. lanthanum (III) phosphate LaPO_4
226. sodium hydrogen sulfate monohydrate
 $\text{NaHSO}_4 \cdot \text{H}_2\text{O}$
227. chromium(III) monohydrogen phosphate
 $\text{Cr}_2(\text{HPO}_4)_3$

D) Write the names for the following formulas:

228. NaOH Sodium hydroxide
229. NI_3 Nitrogen triiodide
230. ClF_3 Chlorine trifluoride
231. P_3N_5 Triphosphorus pentanitride
232. UF_6 Uranium hexafluoride
233. H_3BO_3 Boric acid
234. NaBr Sodium bromide
235. NBr_3 Nitrogen tribromide
236. Cl_2O_3 Dichlorine trioxide
237. CO Carbon monoxide
238. Cu_2S Copper (I) sulphide
239. KHCO_3 Potassium monohydrogen carbonate
240. SbCl_5 Antimony (V) chloride
241. CO_2 Carbon dioxide
242. HgO Mercury (II) oxide
243. PCl_3 Phosphorus trichloride
244. PBr_5 Phosphorus pentabromide
245. IF_7 Iodine heptafluoride
246. Cl_2O Dichlorine monoxide
247. CCl_4 Carbon tetrachloride
248. XeF_4 Xenon tetrafluoride
249. $\text{Hg}(\text{OH})_2$ Mercury(II) hydroxide
250. CaH_2 Calcium hydride
251. BN Boron mononitride
252. N_2O_4 Dinitrogen tetroxide
253. PbO Lead (II) oxide
254. ICl Iodine monochloride
255. Hg_2O Mercury (I) oxide
256. NaH Sodium hydride
257. OsO_2 Osmium (IV) oxide
258. XeF_2 Xenon difluoride
259. $\text{Ca}(\text{C}_2\text{H}_3\text{O}_2)_2$ Calcium acetate
260. $\text{NaC}_2\text{H}_3\text{O}_2$ Sodium acetate
261. $\text{Al}(\text{OH})_3$ Aluminum hydroxide
262. Li_2HPO_4 Lithium monohydrogen phosphate
263. $\text{Ca}(\text{NO}_3)_2$ Calcium nitrate
264. $\text{Ni}(\text{ClO}_4)_2$ Nickel(II) perchlorate
265. $\text{Au}(\text{H}_2\text{PO}_4)_3$ Gold (III) dihydrogen phosphate
266. $\text{NaH}_2\text{PO}_4 \cdot 9\text{H}_2\text{O}$ Sodium dihydrogen phosphate nonahydrate
267. $\text{Pb}(\text{CH}_3\text{COO})_2 \cdot 3\text{H}_2\text{O}$ Lead(II) acetate trihydrate
268. $(\text{NH}_4)_2\text{Cr}_2\text{O}_7$ Ammonium dichromate
269. $\text{Ba}(\text{BrO}_3)_2$ Barium bromate
270. Al_2S_3 Aluminum sulphide
271. Na_2HPO_4 Sodium monohydrogen phosphate
272. HClO_4 Perchloric acid
273. $\text{Mg}_3(\text{PO}_4)_2$ Magnesium phosphate
274. CuSO_3 Copper (II) sulphite
275. $\text{Cr}_2(\text{SO}_3)_3$ Chromium(III) sulphite