

Hydrates	
Write Formulas	Write Names
$\overset{2+}{\text{Ca}} \overset{2-}{\text{SO}_4} \cdot 2 \text{H}_2\text{O}$ calcium sulfate dihydrate	$\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$ copper (II) sulfate pentahydrate
$\overset{+}{\text{Na}}_2 \overset{-}{\text{CO}_3} \cdot 10 \text{H}_2\text{O}$ sodium carbonate decahydrate	$\text{Be}(\text{NO}_3)_2 \cdot 3\text{H}_2\text{O}$ beryllium nitrate trihydrate
$\overset{3+}{\text{Al}}_2 \overset{2-}{\text{O}_3} \cdot \text{H}_2\text{O}$ aluminium oxide monohydrate	$\text{PtBr}_4 \cdot 2\text{H}_2\text{O}$ platinum (IV) bromide dihydrate
$\overset{3+}{\text{Fe}} \overset{-}{\text{Cl}}_3 \cdot 6 \text{H}_2\text{O}$ ferric chloride hexahydrate	$\text{NaC}_2\text{H}_3\text{O}_2 \cdot 3\text{H}_2\text{O}$ sodium acetate trihydrate
$\overset{2+}{\text{Ca}} (\overset{-}{\text{NO}_3})_2 \cdot 3 \text{H}_2\text{O}$ calcium nitrate trihydrate	$\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$ magnesium sulfate heptahydrate
$\overset{2+}{\text{Cd}} \overset{-}{\text{Br}}_2 \cdot 3 \text{H}_2\text{O}$ cadmium bromide trihydrate	$\text{CaCl}_2 \cdot 6\text{H}_2\text{O}$ calcium chloride hexahydrate
$\overset{3+}{\text{Cr}} (\overset{-}{\text{NO}_3})_3 \cdot \text{H}_2\text{O}$ chromium (III) nitrate monohydrate	$\text{CrF}_3 \cdot 4\text{H}_2\text{O}$ chromium (III) fluoride tetrahydrate
$\overset{2+}{\text{Ba}} (\text{OH})_2 \cdot 8 \text{H}_2\text{O}$ barium hydroxide octahydrate	$\text{LiCl} \cdot \text{H}_2\text{O}$ lithium chloride monohydrate
$\overset{2+}{\text{Co}} \overset{-}{\text{Cl}}_2 \cdot 5 \text{H}_2\text{O}$ cobalt (II) chloride pentahydrate	$\text{Ni}(\text{NO}_3)_2 \cdot 6\text{H}_2\text{O}$ nickel (II) nitrate hexahydrate
$\text{BaCl}_2 \cdot 2 \text{H}_2\text{O}$ barium chloride dihydrate	$\text{Na}_3\text{PO}_3 \cdot 4\text{H}_2\text{O}$ sodium phosphite tetrahydrate
$\text{Al}(\text{NO}_3)_3 \cdot \text{H}_2\text{O}$ aluminium nitrate monohydrate	$\text{Cs}_2\text{CO}_2 \cdot 2\text{H}_2\text{O}$ cesium carbonate dihydrate
$\text{Br}_2 \cdot 10 \text{H}_2\text{O}$ bromine decahydrate	$\text{Cu}_2\text{SO}_3 \cdot 3\text{H}_2\text{O}$ copper (I) sulfite trihydrate

## Binary acids, Peroxides, Hydroxides and Ammonium Compounds Nomenclature

Write Formulas		Write Names	
1.	hydrochloric acid $\text{HCl (aq)}$	26.	$\text{HBr}_{(aq)}$ hydrobromic acid
2.	calcium peroxide $\text{CaO}_2$	27.	$\text{H}_2\text{S}_{(aq)}$ hydrosulfuric acid
3.	ammonium sulfide $(\text{NH}_4)_2\text{S}$	28.	$\text{NH}_4\text{Cl}$ ammonium chloride
4.	calcium oxide $\text{CaO}$	29.	$\text{Na}_2\text{O}$ sodium oxide
5.	hydroiodic acid $\text{HI (aq)}$	30.	$\text{AgOH}$ silver hydroxide
6.	aluminium peroxide $\text{Al}_2\text{O}_6$ OR $\text{Al}_2(\text{O}_2)_3$	31.	$\text{Rb}_2\text{O}$ rubidium oxide
7.	ammonium bromide $\text{NH}_4\text{Br}$	32.	$\text{Na}_2\text{O}_2$ sodium peroxide
8.	aluminum oxide $\text{Al}_2\text{O}_3$	33.	$(\text{NH}_4)_3\text{N}$ ammonium nitride
9.	ammonium hydroxide $\text{NH}_4\text{OH}$	34.	$\text{NaOH}$ sodium hydroxide
10.	barium hydroxide $\text{Ba}(\text{OH})_2$	35.	$\text{K}_2\text{O}_2$ potassium peroxide
11.	hydrosulfuric acid $\text{H}_2\text{S (aq)}$	36.	$\text{KOH}$ potassium hydroxide
12.	hydrogen peroxide $\text{H}_2\text{O}_2$	37.	$\text{MgO}_2$ magnesium peroxide
13.	ammonium iodide $\text{NH}_4\text{I}$	38.	$\text{H}_2\text{Se}_{(aq)}$ hydroselenic acid
14.	hydrogen sulfide gas $\text{H}_2\text{S (g)}$	39.	$\text{HBr}_{(g)}$ hydrogen bromide
15.	lithium hydroxide $\text{LiOH}$	40.	$\text{BaO}$ barium oxide
16.	hydrogen chloride gas $\text{HCl (g)}$	41.	$\text{Zn}(\text{OH})_2$ zinc hydroxide
17.	magnesium hydroxide $\text{Mg}(\text{OH})_2$	42.	$\text{MgO}$ magnesium oxide
18.	potassium peroxide $\text{K}_2\text{O}_2$	43.	$\text{HCl}_{(aq)}$ hydrochloric acid
19.	hydrofluoric acid $\text{HF (aq)}$	44.	$\text{K}_2\text{O}$ potassium oxide
20.	calcium hydroxide $\text{Ca}(\text{OH})_2$	45.	$\text{HOH}$ Water
21.	cesium oxide $\text{Cs}_2\text{O}$	46.	$\text{HBr}_{(g)}$ hydrogen bromide
22.	hydrobromic acid $\text{HBr (aq)}$	47.	$\text{Sr}(\text{OH})_2$ strontium hydroxide
23.	aluminum hydroxide $\text{Al}(\text{OH})_3$	48.	$\text{HI}_{(g)}$ hydrogen iodide
24.	hydrogen oxide $\text{H}_2\text{O}$	49.	$\text{HF}_{(aq)}$ hydrofluoric acid
25.	hydrogen iodide gas $\text{HI (g)}$	50.	$\text{BaO}_2$ barium peroxide

## Nomenclature Worksheet (All Types #1)

plumbic chlorite	$Pb(ClO_2)_4$	$H_2SO_4(aq)$	sulfuric acid
silver phosphite	$Ag_3PO_3$	$LiIO_3$ $LiO_3$	lithium iodate
antimonous chlorite	$Sb(ClO_2)_3$	$CuClO_4$	copper (I) perchlorate
bismuth (V) phosphide	$Bi_3P_5$	$Mg(IO_4)_2$	magnesium periodate
mercury (I) sulfate	$Hg_2SO_4$	$As(IO_2)_3$	arsenic (III) iodite
iron (II) nitrite	$Fe(NO_2)_2$	$KClO_3$	potassium chlorate
copper (II) nitrate	$Cu(NO_3)_2$	$Li_3PO_3$	lithium phosphite
potassium bicarbonate	$KHCO_3$	$Fe(IO_4)_3$	iron (III) periodate
ferrous bicarbonate	$Fe(HCO_3)_2$	$Zn_3(PO_4)_2$	zinc phosphate
manganese (IV) bisulfate	$Mn(HSO_4)_4$	$Sb(NO_3)_3$	antimony (III) nitrate
aluminum hydrogen carbonate	$Al(HCO_3)_3$	$HgHCO_3$	mercury (I) bicarbonate
calcium hydrogen sulfite	$Ca(HSO_3)_2$	$Bi(HCO_3)_3$	bismuth (III) bicarbonate
lead (IV) hydrogen sulfate	$Pb(HSO_4)_4$	$Ba(HSO_4)_2$	barium bisulfate
ammonium bicarbonate	$NH_4HCO_3$	$Cu(HSO_3)_2$	copper (II) bisulfite
sodium dihydrogen phosphate	$NaH_2PO_4$	$As(HSO_4)_5$	arsenic (V) bisulfate
aluminum hydrogen phosphate	$Al_2(HPO_4)_3$	$Fe(C_2H_3O_2)_3$	iron (III) acetate
copper (II) sulfate pentahydrate	$CuSO_4 \cdot 5H_2O$	$NH_4NO_3$	ammonium nitrate
magnesium sulfate heptahydrate	$MgSO_4 \cdot 7H_2O$	$K_3PO_4$	potassium phosphate
cobalt (II) chloride dihydrate	$CoCl_2 \cdot 2H_2O$	$HI$	hydrogen iodide
potassium hydroxide	$KOH$	$NH_3$	ammonia
sulfuric acid	$H_2SO_4(aq)$	$CaHPO_4$	calcium hydrogen phosphate
ammonia	$NH_3$	$KH_2PO_4$	potassium dihydrogen phosphate
sodium bicarbonate	$NaHCO_3$	$Na_2HPO_4$	sodium hydrogen phosphate
calcium hydrogen carbonate	$Ca(HCO_3)_2$	$HCl(aq)$	hydrochloric acid

## Nomenclature Worksheet (All Types #2)

hydrofluoric acid	$\text{HF (aq)}$	$\text{Na}_2\text{SO}_3$	sodium sulfite
hydrogen iodide	$\text{HI}$	$\text{HBr}$	hydrogen bromide
ferrous chloride	$\text{FeCl}_2$	$\text{Ba(NO}_3)_2$	barium nitrate
iron (III) nitrate	$\text{Fe(NO}_3)_3$	$\text{Na}_2\text{CO}_3$	sodium carbonate
cupric sulfate	$\text{CuSO}_4$	$\text{H}_2\text{O}_2$	hydrogen peroxide
sulfur trioxide	$\text{SO}_3$	$\text{MnSO}_4$	manganese (II) sulfate
lead (II) perchlorate	$\text{Pb(ClO}_4)_2$	$\text{PbCl}_2$	lead (II) chloride
carbon tetrachloride	$\text{CCl}_4$	$\text{Hg}_2\text{SO}_4$	mercury (I) sulfate
sulphurous acid	$\text{H}_2\text{SO}_3 \text{ (aq)}$	$\text{HClO}_2 \text{ (aq)}$	chlorous acid
calcium hypochlorite	$\text{Ca(ClO)}_2$	$\text{NaIO}_4$	sodium periodate
zinc sulfate	$\text{ZnSO}_4$	$\text{PCl}_3$	phosphorus trichloride
lead (IV) oxide	$\text{PbO}_2$	$\text{NO}_2$	nitrogen dioxide
silicon dioxide	$\text{SiO}_2$	$\text{CaCO}_3$	calcium carbonate
hypobromous acid	$\text{HBrO (aq)}$	$\text{KNO}_3$	potassium nitrate
calcium chloride	$\text{CaCl}_2$	$\text{Al(OH)}_3$	aluminum hydroxide
mercurous iodide	$\text{HgI}$	$\text{SnCl}_2$	tin (II) chloride
phosphorus trioxide	$\text{PO}_3$	$\text{Sb}_2\text{O}_5$	antimony (V) oxide
magnesium sulfite	$\text{MgSO}_3$	$\text{NH}_3$	ammonia
barium hydroxide	$\text{Ba(OH)}_2$	$\text{Fe}_2(\text{SO}_4)_3$	iron (III) sulfate
potassium bromite	$\text{KBrO}_2$	$\text{K}_3\text{PO}_3$	potassium phosphite
silver nitrate	$\text{AgNO}_3$	$\text{Cu}_2\text{O}$	copper (I) oxide
potassium iodite	$\text{KIO}_2$	$\text{*AsBr}_3$	arsenic (III) bromide
perchloric acid	$\text{HClO}_4 \text{ (aq)}$	$\text{HClO}_4 \text{ (aq)}$	perchloric acid
mercury (II) chloride	$\text{HgCl}_2$	$\text{HgCl}_2$	mercury (II) chloride

## Thio & Acid Radical Salts

Write Formulas		Write Names	
1.	potassium hydrogen carbonate $K^+ HCO_3^- KHCO_3$	26.	$KHCO_3$ potassium hydrogen carbonate
2.	sodium hydrogen phosphate $Na^+ HPO_4^{2-} Na_2HPO_4$	27.	$Ag_2S_2O_3$ silver thiosulfate
3.	barium thiosulfate $Ba^{2+} S_2O_3^{2-} BaS_2O_3$	28.	$KH_2PO_4$ potassium dihydrogen phosphate
4.	magnesium phosphite $Mg^{2+} PO_3^{3-} Mg_3(PO_3)_2$	29.	$Ca(SCN)_2$ calcium thiocyanate
5.	sodium hydrogen thiosulfate $Na^+ HS_2O_3^- NaHS_2O_3$	30.	$BaS_2O_3$ barium thiosulfate
6.	potassium bisulfate $K^+ HSO_4^- KHSO_4$	31.	$NaHCO_3$ sodium hydrogen carbonate
7.	potassium thiocyanate $K^+ SCN^- KSCN$	32.	$NaOH$ sodium hydroxide
8.	sodium dihydrogen phosphate $Na^+ H_2PO_4^- NaH_2PO_4$	33.	$CaS_2O_2$ calcium thiosulfite
9.	ferric hydrogen sulfate $Fe^{3+} HSO_4^- Fe(HSO_4)_3$	34.	$KHSO_4$ potassium hydrogen sulfate
10.	ammonium hydrogen carbonate $NH_4^+ HCO_3^- NH_4HCO_3$	35.	$AlSPO_3$ aluminum thiophosphate ←
11.	potassium dihydrogen phosphate $K^+ H_2PO_4^- KH_2PO_4$	36.	$NaH_2PO_4$ sodium dihydrogen phosphate
12.	ammonium thiosulfate $NH_4^+ S_2O_3^{2-} (NH_4)_2S_2O_3$	37.	$PCl_5$ phosphorus pentachloride
13.	calcium dihydrogen hypophosphite $Ca^{2+} H_2PO_2^- Ca(H_2PO_2)_2$	38.	$Na_2Cr_2O_7$ sodium dichromate
14.	aluminum carbonite $Al^{3+} CO_2^{2-} Al_2(CO_2)_3$	39.	$Ca(H_2PO_2)_2$ calcium dihydrogen hypophosphite
15.	aluminum hydrogen sulfite $Al^{3+} HSO_2^- Al(HSO_2)_3$	40.	$Na_2SCO_2$ sodium thiocarbonate ←
16.	potassium thiosulfate $K^+ S_2O_3^{2-} K_2S_2O_3$	41.	$Al(HSO_3)_3$ aluminum hydrogen sulfite
17.	nickel (II) hydrogen silicate $Ni^{2+} Ni(HSiO_3)_2$	42.	$CaS_2O_2$ calcium thiosulfite
18.	magnesium dihydrogen phosphate $Mg^{2+} H_2PO_4^- Mg(H_2PO_4)_2$	43.	$NaClO$ sodium hypochlorite
19.	sodium carbonate $Na^+ CO_3^{2-} Na_2CO_3$	44.	$CaHPO_4$ calcium hydrogen phosphate
20.	sodium hydrogen carbonate $Na^+ HCO_3^- NaHCO_3$	45.	$FeCl_3$ iron (III) chloride
21.	stannic dihydrogen hypophosphite $Sn Sn(H_2PO_2)_4$	46.	$CaCO_3$ calcium carbonate
22.	potassium bisulfite $K^+ KHSO_3$	47.	$K_2HPO_3$ potassium hydrogen phosphite
23.	calcium cyanate $Ca^{2+} Ca(CNO)_2$	48.	$KSCN$ potassium thiocyanate
24.	sodium bicarbonate $Na^+ HCO_3^- NaHCO_3$	49.	$HBr_{(aq)}$ hydrobromic acid
25.	silver thiosulfate $Ag^+ Ag_2S_2O_3$	50.	$Ba(HSO_3)_2$ barium hydrogen sulfite

