

AP CHEMISTRY IONIC COMPOUNDS FROM PREVIOUS TESTS NAME: _____

In each blank: a) write the balanced chemical equation for the dissolution in water of this ionic compound (include the formula of the compound as a reactant), b) circle the side that is predominant in a 1 M solution (use solubility rules!). If the compound is a metal oxide or hydride, write the appropriate reaction with water, not a dissociation.

1.	aluminum oxide		Lithium nitride	27.
2.	zinc iodide		Barium chloride	28.
3.	magnesium nitrate	$Mg(NO_3)_2 (s) \rightarrow Mg^{2+} (aq) + 2 NO_3^- (aq)$	Zinc hydroxide	29.
4.	lithium hydride		Nickel (II) nitrate	30.
5.	calcium carbonate		Potassium dihydrogen phosphate	31.
6.	Manganese (II) sulfide		Magnesium oxide	32.
7.	Magnesium nitride		Copper (II) sulfate	33.
8.	Potassium phosphate		Lithium oxide	34.
9.	Sodium cyanide		Copper (II) sulfide	35.
10.	Manganese (II) sulfate		Silver chloride	36.
11.	Ammonium sulfide		Barium acetate	37.
12.	Phosphorus (V) oxide		Sodium bromide	38.
13.	Iron (II) chloride		Sodium phosphate	39.
14.	Barium oxide		Calcium chloride	40.
15.	Calcium phosphate		Calcium oxide	41.
16.	Mercury (II) chloride		Strontium nitrate	42.
17.	Calcium hydride		Calcium sulfite	43.
18.	Sodium chromate		Sodium hydrogen carbonate	44.
19.	Aluminum nitrate		Potassium thiocyanate	45.
20.	Potassium bromate		Sodium dichromate	46.
21.	Cesium oxide		Potassium iodate	47.
22.	Cobalt (II) chloride		Calcium fluoride	48.
23.	Zinc sulfide	$ZnS (s) \rightarrow Zn^{2+} (aq) + S^{2-} (aq)$	Sodium fluoride	49.
24.	Iron (II) nitrate		Iron (III) nitrate	50.
25.	Sodium hypochlorite		Lead (II) acetate	51.
26.	Ammonium thiocyanate		aluminum sulfate	52.

53.	Potassium dichromate	iron (II) sulfite	79.
54.	Sodium sulfate	copper (II) oxide	80.
55.	Lithium hydrogen carbonate	sodium hydride	81.
56.	Sodium hydroxide	potassium sulfate	82.
57.	Sodium permanganate	hydrogen chloride	83.
58.	Sodium sulfite	nickel (II) bromide	84.
59.	Iron (III) oxide	strontium chloride	85.
60.	Zinc carbonate	magnesium iodide	86.
61.	Calcium acetate	sodium acetate	87.
62.	Calcium hydroxide	hydrogen iodide	88.
63.	Iron (II) oxide	Potassium carbonate	89.
64.	Nickel (II) chloride	Iron (III) chloride	90.
65.	Cobalt (II) nitrate	Sodium iodide	91.
66.	Ammonium nitrate	Lead (II) nitrate	92.
67.	Lead (II) carbonate	Hydrogen sulfide	93.
68.	Barium nitrate	Potassium hydroxide	94.
69.	Potassium chromate	Silver nitrate	95.
70.	Nickel (II) sulfate	Lithium bromide	96.
71.	Copper (II) chloride	Potassium sulfite	97.
72.	Tin (II) nitrate	Potassium permanganate	98.
73.	Potassium hydrogen carbonate	Ammonium thiocyanate	99.
74.	Strontium oxide	Sodium oxalate	100.
75.	zinc hydroxide	Sodium sulfide	101.
76.	Nickel (II) nitrate	Lithium carbonate	102.
77.	Potassium dihydrogen phosphate	Sodium chloride	103.
78.	Magnesium oxide	Sodium hydroxide	104.

105.	Potassium oxide	Sodium permanganate	121.
106.	Copper (II) sulfate	Sodium sulfite	122.
107.	Lithium oxide	Iron (III) oxide	123.
108.	Copper (II) sulfide	Ammonium carbonate	124.
109.	Silver chloride	Barium hydroxide	125.
110.	Magnesium carbonate	Ammonium sulfate	126.
111.	Potassium bromide	Ammonium chloride	127.
112.	Hydrogen peroxide	Potassiumchlorate	128.
113.	Sodium hydrogen carbonate	Manganese (IV) oxide	129.
114.	Potassium thiocyanate	Sodium oxide	130.
115.	Sodium dichromate	Potassium iodide	131.
116.	Potassium iodate	Tin (II) chloride	132.
117.	Calcium fluoride	Aluminum hydroxide	133.
118.	Manganese (IV) oxide	Iron (III) sulfate	134.
119.	Copper (II) nitrate	Zinc nitrate	135.
120.	Sodium chromate		

ACIDS

1.	hydrofluoric acid	
2.	nitric acid	
3.	formic acid	
4.	acetic acid	
5.	phosphoric acid	
6.	hydrobomoic acid	
7.	nitrous acid	
8.	hydrochloric acid	
9.	sulfuric acid	
10.	oxalic acid	
11.	hydrochloric acid	

MOLECULAR COMPOUNDS

1.	phosphorus trihydride	
2.	boron trifluoride	
3.	sulfur dioxide	
4.	sulfur trioxide	
5.	ammonia	
6.	dinitrogen pentoxide	
7.	carbon disulfide	
8.	carbon dioxide	
9.	phosphorus pentachloride	
10.	dinitrogen trioxide	
11.	boron trichloride	
12.	carbon monoxide	

AP CHEMISTRY NAMING OF ACIDS, MOLECULAR COMPOUNDS, AND ORGANIC COMPOUNDS FROM PREVIOUS TESTS

Directions: In the blank provided, write the formula. For compounds labeled "Molecular Compounds", also record their complete Lewis structure.

ORGANIC COMPOUNDS

1.	ethanoic acid	
2.	ethanol	
3.	methanoic acid	
4.	propanone	
5.	butanol	
6.	propane	
7.	1-propanol	
8.	ethanol	
9.		
10.	ethene	
11.	methane	
12.	propene	
13.	benzene	
14.	propanoic acid	
15.	dimethyl ether	
16.	ethyne (acetylene)	

AP CHEMISTRY NAMING AND STRONG/WEAK FOR ACIDS FROM PREVIOUS TESTS

Directions: In the blanks provided, write the name of the acid, "S" or "W" for strong or weak, and how it's written in solution.

Acid	Name	How written in 1.0 M	strong/ weak?
1. HF	hydrofluoric acid	HF (aq)	W
2. HCl	hydrochloric acid	H ⁺ (aq) + Cl ⁻ (aq)	S
3. HBr			
4. H ₂ S			
5. HClO ₄			
6. HClO ₃			
7. HClO ₂			
8. HClO			
9. HNO ₃			
10. HNO ₂			
11. H ₂ SO ₄			
12. H ₂ SO ₃			
13. H ₂ CO ₃			
14. H ₃ PO ₄			
15. H ₂ C ₂ O ₄			
16. CH ₃ COOH			

AP CHEMISTRY PRECIPITATION REACTIONS FROM PREVIOUS TESTS

Directions: Balance and indicate phases (s,aq). Do so in 2 ways:

a) molecular equation for each

b) net ionic equation for each

1. A solution of sodium sulfide is added to a solution of zinc nitrate. (86)
2. Solutions of zinc sulfate and sodium phosphate are mixed. (89)
3. Solutions of silver nitrate and lithium bromide are mixed. (89)
4. Solutions of sodium iodide and lead (II) nitrate are mixed. (90)
5. Solutions of silver nitrate and sodium chromate are mixed. (90)
6. A solution of copper (II) sulfate is added to a solution of barium hydroxide. (91)
7. Sodium hydroxide solution is added to a solution of magnesium nitrate.(92)
8. Solutions of potassium phosphate and zinc nitrate are mixed. (93)
9. Solutions of manganese (II) sulfate and ammonium sulfide are mixed. (94)
10. A solution of nickel chloride is added to a solution of sodium sulfide. (97)
11. Solutions of cobalt (II) nitrate and sodium hydroxide are mixed. (98)
12. A solution of copper (II) chloride is added to a solution of sodium sulfide. (00)
13. Solutions of strontium nitrate and sodium sulfate are mixed. (01)
14. Solutions of sodium chromate and lead (II) nitrate are mixed. (02B)
15. A solution of sodium iodide is added to a solution of lead (II) acetate. (02)
16. Solutions of lead (II) nitrate and potassium sulfate are mixed. (03B)
17. A solution of potassium phosphate is mixed with a solution of calcium acetate. (03)
18. A solution of sodium phosphate is added to a solution of aluminum nitrate.(04)
19. Solutions of silver nitrate and sodium chloride are combined. (04B)

Example:

