

## AP Chemistry 2016-2017

### Introduction

Advanced Placement Chemistry is a college level course; **THIS IS freshman level college chemistry**. You will need to be dedicated and work very hard if you are to be successful. Don't let any of this intimidate you or discourage you, just be prepared to work hard and to be challenged. The following assignment is meant to serve as a review of the concepts covered in high school general chemistry.

### Summer Assignment

Knowing your element symbols and names, transition metal charges and polyatomic ion names and charges is essential for success in learning the concepts covered in the course. Do not wait until the night before school begins. **The first day test will cover the following.**

- Know your element symbols and names. The entire periodic table is open game this year. AP/IB will only provide you with a periodic table similar to the one you are already familiar with in my class, but you are expected to know all elements through Uranium (92).
- Polyatomic Ions (including name, symbol and charge, list attached)
- Variable Valences for Transition Metals (list attached)
- Rules for Naming Acids (<http://www.chemteam.info/Nomenclature/Acid-Nomenclature.html> )
- Rules for naming ionic and covalent compounds  
([http://chemwiki.ucdavis.edu/Physical\\_Chemistry/Quantum\\_Mechanics/09. The Hydrogen Atom/Atomic Theory/Chemical Compounds/Nomenclature of Inorganic Compounds](http://chemwiki.ucdavis.edu/Physical_Chemistry/Quantum_Mechanics/09._The_Hydrogen_Atom/Atomic_Theory/Chemical_Compounds/Nomenclature_of_Inorganic_Compounds))

The following pages contain the list of polyatomics and common cations as well as some nomenclature practice sheets with answers. There is nothing to hand in the first day, the test on the first day will tell me if you spent the time to review and learn your nomenclature. In addition in preparing for the first day element/nomenclature test the following assignment is due at 8 am on August 9<sup>th</sup>.

**UT Quest Assignment:** You must register on the UT quest site and join the class with unique ID AHSAP2016. Please due this by May 20<sup>th</sup> because I need to approve your enrollment and after school is out I will not be checking the system. If you have enrolled in the Auburn School System during the summer, please email me (rkduke@auburnschools.org) that you have requested enrollment so that I can approve you. This assignment will be taken as a 150 pt classwork/homework grade in this class. It is due by 8 am August 9<sup>th</sup>; the first day of school. Please remember that UT quest does not use significant figures but a 1% error system for grading open ended answers, so you should answer with a minimum of 4 significant figures unless it is a question that specifically is asking about significant figures.

**THE ONLY MATERIAL ON THE FIRST DAY TEST IS ELEMENT AND POLYATOMIC ION NAMES/SYMBOLS AND NOMENCLATURE. Other material covered in the UT assignment is not on the test.**

**Have a great summer, I am looking forward to an exciting and rewarding year!**

## Common Polyatomic Ions

acetate	$C_2H_3O_2^-$
ammonium	$NH_4^+$
arsenate	$AsO_4^{3-}$
arsenite	$AsO_3^{3-}$
	$C_7H_5O_2^-$
bromate	$BrO_3^-$
carbonate	$CO_3^{2-}$
chlorate	$ClO_3^-$
chromate	$CrO_4^{2-}$
cyanide	$CN^-$
dichromate	$Cr_2O_7^{2-}$
dihydrogen phosphate	$H_2PO_4^-$
dihydrogen phosphite	$H_2PO_3^-$
hydrogen carbonate	$HCO_3^-$
hydrogen phosphate	$HPO_4^{2-}$
hydrogen phosphite	$HPO_3^{2-}$
hydrogen sulfate	$HSO_4^-$
hydrogen sulfide	$HS^-$
hydrogen sulfite	$HSO_3^-$
hydroxide	$OH^-$
hypochlorite	$ClO^-$
iodate	$IO_3^-$
nitrate	$NO_3^-$
nitrite	$NO_2^-$
oxalate	$C_2O_4^{2-}$
perchlorate	$ClO_4^-$
permanganate	$MnO_4^-$
peroxide	$O_2^{2-}$
phosphate	$PO_4^{3-}$
phosphite	$PO_3^{3-}$
sulfate	$SO_4^{2-}$
sulfite	$SO_3^{2-}$
thiocyanate	$SCN^-$
thiosulfate	$S_2O_3^{2-}$

Remember	
ite = fewer O's	
ate = more O's	
$ClO^-$	hypochlorite
$ClO_2^-$	chlorite
$ClO_3^-$	chlorate
$ClO_4^-$	perchlorate
$H_2PO_3^-$	dihydrogen phosphite
$H_2PO_4^-$	dihydrogen phosphate
$HCO_3^-$	hydrogen carbonate
$HPO_3^{2-}$	hydrogen phosphite
$HPO_4^{2-}$	hydrogen phosphate
$HSO_3^-$	hydrogen sulfite
$HSO_4^-$	hydrogen sulfate
$PO_3^{3-}$	phosphite
$PO_4^{3-}$	phosphate

(bicarbonate)

bisulfite

bisulfate

## Common Ions

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### CATIONS (+ve)

Name	Symbol/ Formula	Alternative*
Aluminum	$\text{Al}^{3+}$	
Ammonium	$\text{NH}_4^+$	
Arsenic (III)	$\text{As}^{3+}$	
Arsenic (V)	$\text{As}^{5+}$	
Barium	$\text{Ba}^{2+}$	
Bismuth (III)	$\text{Bi}^{3+}$	
Bismuth (V)	$\text{Bi}^{5+}$	
Cadmium	$\text{Cd}^{2+}$	
Calcium	$\text{Ca}^{2+}$	
Chromium (II)	$\text{Cr}^{2+}$	
Chromium (III)	$\text{Cr}^{3+}$	
Cobalt (II)	$\text{Co}^{2+}$	
Cobalt (III)	$\text{Co}^{3+}$	
<u>Copper (I)</u>	$\text{Cu}^+$	(Cuprous)
<u>Copper (II)</u>	$\text{Cu}^{2+}$	(Cupric)
Hydrogen	$\text{H}^+$	
Hydronium	$\text{H}_3\text{O}^+$	
<u>Iron (II)</u>	$\text{Fe}^{2+}$	(Ferrous)
<u>Iron (III)</u>	$\text{Fe}^{3+}$	(Ferric)
<u>Lead (II)</u>	$\text{Pb}^{2+}$	(Plumbous)
<u>Lead (IV)</u>	$\text{Pb}^{4+}$	(Plumbic)
Lithium	$\text{Li}^+$	
Magnesium	$\text{Mg}^{2+}$	
Manganese (II)	$\text{Mn}^{2+}$	
Manganese (IV)	$\text{Mn}^{4+}$	
<u>Mercury (I)</u>	$\text{Hg}_2^{2+}$	(Mercurous)
<u>Mercury (II)</u>	$\text{Hg}^{2+}$	(Mercuric)
Nickel (II)	$\text{Ni}^{2+}$	
Potassium	$\text{K}^+$	
Silver	$\text{Ag}^+$	
Sodium	$\text{Na}^+$	
Strontium	$\text{Sr}^{2+}$	
<u>Tin (II)</u>	$\text{Sn}^{2+}$	(Stannous)
<u>Tin (IV)</u>	$\text{Sn}^{4+}$	(Stannic)
Zinc	$\text{Zn}^{2+}$	

## AP CHEMISTRY NOMENCLATURE WORKSHEET

### Chemical Formula Nomenclature Practice:

Use the stock form for the transition metals.

#### Give the formula for the following:

- sulfur dioxide \_\_\_\_\_
- sodium thiosulfate \_\_\_\_\_
- ammonium phosphate \_\_\_\_\_
- potassium chlorate \_\_\_\_\_
- lithium hydroxide \_\_\_\_\_
- zinc nitrite \_\_\_\_\_
- sodium sulfate \_\_\_\_\_
- cobalt (IV) bisulfite \_\_\_\_\_
- cadmium nitrate \_\_\_\_\_
- nitrogen monoxide \_\_\_\_\_
- hydrogen peroxide \_\_\_\_\_
- carbon monoxide \_\_\_\_\_
- silicon dioxide \_\_\_\_\_
- copper (I) bromide \_\_\_\_\_
- iron (II) chromate \_\_\_\_\_
- mercury (I) fluoride \_\_\_\_\_
- carbon tetrachloride \_\_\_\_\_
- carbon dioxide \_\_\_\_\_
- cobalt (II) chloride \_\_\_\_\_
- aluminum carbonate \_\_\_\_\_
- diphosphorus pentaoxide \_\_\_\_\_
- cesium oxalate \_\_\_\_\_
- nickel (II) sulfite \_\_\_\_\_
- barium hypochlorite \_\_\_\_\_
- phosphorus pentachloride \_\_\_\_\_
- manganese(VII)oxide \_\_\_\_\_
- copper (II) sulfate \_\_\_\_\_
- nitrogen dioxide \_\_\_\_\_
- mercury (II) chloride \_\_\_\_\_
- tin (II) bromide \_\_\_\_\_
- silver iodide \_\_\_\_\_
- magnesium bisulfite \_\_\_\_\_
- silicon disulfide \_\_\_\_\_
- beryllium iodate \_\_\_\_\_
- platinum (IV) cyanide \_\_\_\_\_
- tungsten (IV) thiosulfate \_\_\_\_\_
- dinitrogen monoxide \_\_\_\_\_
- iron III oxide \_\_\_\_\_
- gold (III) chloride \_\_\_\_\_
- strontium sulfide \_\_\_\_\_
- uranium (VI) fluoride \_\_\_\_\_
- lead (II) bicarbonate \_\_\_\_\_
- Tin (IV) fluoride \_\_\_\_\_
- sodium dichromate \_\_\_\_\_
- water \_\_\_\_\_
- lead (II) peroxide \_\_\_\_\_
- calcium phosphide \_\_\_\_\_
- rubidium chromate \_\_\_\_\_
- nickel (II) chlorate \_\_\_\_\_
- magnesium nitride \_\_\_\_\_

## CHEMISTRY NOMENCLATURE WORKSHEET

- |                             |       |                            |       |
|-----------------------------|-------|----------------------------|-------|
| 51. ammonium sulfide        | _____ | 74. mercury (I) acetate    | _____ |
| 52. aluminum phosphide      | _____ | 75. calcium bisulfate      | _____ |
| 53. zinc dichromate         | _____ | 76. lithium hydride        | _____ |
| 54. aluminum hydride        | _____ | 77. lithium chlorate       | _____ |
| 55. strontium phosphate     | _____ | 78. cupric perchlorate     | _____ |
| 56. tin (II) phosphate      | _____ | 79. gold (III) perchlorate | _____ |
| 57. chromium (III) nitrate  | _____ | 80. aluminum bisulfite     | _____ |
| 58. cobalt (II) chlorate    | _____ | 81. iron (II) phosphate    | _____ |
| 59. cesium cyanide          | _____ | 82. copper (II) chloride   | _____ |
| 60. bismuth (III) bisulfate | _____ | 83. ammonium nitrate       | _____ |
| 61. magnesium chlorite      | _____ | 84. mercury (I) sulfate    | _____ |
| 62. arsenic trichloride     | _____ | 85. cesium nitrite         | _____ |
| 63. tin (II) oxide          | _____ | 86. sodium bisulfate       | _____ |
| 64. lead (II) perchlorate   | _____ | 87. hydrochloric acid      | _____ |
| 65. iron (II) bromide       | _____ | 88. sulfuric acid          | _____ |
| 66. silver sulfite          | _____ | 89. phosphoric acid        | _____ |
| 67. potassium permanganate  | _____ | 90. perchloric acid        | _____ |
| 68. tin (IV) sulfate        | _____ | 91. hydrobromic acid       | _____ |
| 69. cobalt (IV) fluoride    | _____ | 92. tin (IV) permanganate  | _____ |
| 70. cesium bromate          | _____ | 93. hydroiodic acid        | _____ |
| 71. iron (III) dichromate   | _____ | 94. nitric acid            | _____ |
| 72. beryllium iodide        | _____ | 95. magnesium dichromate   | _____ |
| 73. copper (I) carbonate    | _____ |                            |       |

## CHEMISTRY 1A NOMENCLATURE WORKSHEET

Give the names of the following compounds

- |   |       |  |       |
|---|-------|--|-------|
| 1. NaCl   | _____ | 23. AgC <sub>2</sub> H <sub>3</sub> O <sub>2</sub>   | _____ |
| 2. AgNO <sub>3</sub>  | _____ | 24. Cr <sub>2</sub> O <sub>3</sub>                   | _____ |
| 3. BaCrO <sub>4</sub>   | _____ | 25. KBr  | _____ |
| 4. KOH  | _____ | 26. Cd(HSO <sub>4</sub> ) <sub>2</sub>               | _____ |
| 5. ZnSO <sub>4</sub>  | _____ | 27. CO <sub>2</sub>                                  | _____ |
| 6. MgBr <sub>2</sub>  | _____ | 28. H <sub>2</sub> O <sub>2</sub>                    | _____ |
| 7. Al <sub>2</sub> O <sub>3</sub>                                 | _____ | 29. CaSO <sub>4</sub>                                | _____ |
| 8. CdCl <sub>2</sub>  | _____ | 30. Ni <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub>  | _____ |
| 9. NH <sub>4</sub> I  | _____ | 31. AsF <sub>3</sub>                                 | _____ |
| 10. Fe(OH) <sub>3</sub>   | _____ | 32. Co <sub>3</sub> (AsO <sub>4</sub> ) <sub>2</sub> | _____ |
| 11. Ba <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub>               | _____ | 33. ZnCr <sub>2</sub> O <sub>7</sub>                 | _____ |
| 12. KClO <sub>3</sub>   | _____ | 34. KCN  | _____ |
| 13. Na <sub>2</sub> CO <sub>3</sub>                               | _____ | 35. Bi(NO <sub>3</sub> ) <sub>3</sub>                | _____ |
| 14. (NH <sub>4</sub> ) <sub>2</sub> C <sub>2</sub> O <sub>4</sub> | _____ | 36. CaH <sub>2</sub>                                 | _____ |
| 15. (NH <sub>4</sub> ) <sub>2</sub> CO <sub>3</sub>               | _____ | 37. SnS <sub>2</sub>                                 | _____ |
| 16. NiF <sub>2</sub>  | _____ | 38. Cr <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub>  | _____ |
| 17. Zn(ClO <sub>3</sub> ) <sub>2</sub>                            | _____ | 39. Hg(BrO <sub>3</sub> ) <sub>2</sub>               | _____ |
| 18. Ca(OH) <sub>2</sub>   | _____ | 40. N <sub>2</sub> O <sub>4</sub>                    | _____ |
| 19. BaSO <sub>3</sub>   | _____ | 41. Pb(HCO <sub>3</sub> ) <sub>2</sub>               | _____ |
| 20. AlCl <sub>3</sub>   | _____ | 42. Na <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub>   | _____ |
| 21. Cu <sub>2</sub> CO <sub>3</sub>                               | _____ | 43. PbO <sub>2</sub>                                 | _____ |
| 22. FeO   | _____ | (2 possible names)                                   | _____ |

## CHEMISTRY NOMENCLATURE WORKSHEET

### Chemical Formula Nomenclature Practice:

Complete these in lab and on your own time for practice. You should complete this by Sunday.  
Use the stock form for the transition metals.

### Give the formula for the following:

- |                              |   |                               |  |
|------------------------------|---|-------------------------------|--|
| 1. sulfur dioxide            | <u>SO<sub>2</sub></u>                             | 26. manganese(VII)oxide       | <u>Mn<sub>2</sub>O<sub>7</sub></u>               |
| 2. sodium thiosulfate        | <u>Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub></u>   | 27. copper (II) sulfate       | <u>CuSO<sub>4</sub></u>                          |
| 3. ammonium phosphate        | <u>(NH<sub>4</sub>)<sub>3</sub>PO<sub>4</sub></u> | 28. nitrogen dioxide          | <u>NO<sub>2</sub></u>                            |
| 4. potassium chlorate        | <u>KClO<sub>3</sub></u>                           | 29. mercury (II) chloride     | <u>HgCl<sub>2</sub></u>                          |
| 5. lithium hydroxide         | <u>LiOH</u>                                       | 30. tin (II) bromide          | <u>SnBr<sub>2</sub></u>                          |
| 6. zinc nitrite              | <u>Zn(NO<sub>2</sub>)<sub>2</sub></u>             | 31. silver iodide             | <u>AgI</u>                                       |
| 7. sodium sulfate            | <u>Na<sub>2</sub>SO<sub>4</sub></u>               | 32. magnesium bisulfite       | <u>Mg(HSO<sub>3</sub>)<sub>2</sub></u>           |
| 8. cobalt (IV) bisulfite     | <u>Co(HSO<sub>3</sub>)<sub>4</sub></u>            | 33. carbon disulfide          | <u>CS<sub>2</sub></u>                            |
| 9. cadmium nitrate           | <u>Cd(NO<sub>3</sub>)<sub>2</sub></u>             | 34. beryllium periodate       | <u>Be(IO<sub>4</sub>)<sub>2</sub></u>            |
| 10. nitrogen monoxide        | <u>NO</u>   | 35. platinum (IV) cyanide     | <u>Pt(CN)<sub>4</sub></u>                        |
| 11. hydrogen peroxide        | <u>H<sub>2</sub>O<sub>2</sub></u>                 | 36. tungsten (IV) thiosulfate | <u>W(S<sub>2</sub>O<sub>3</sub>)<sub>2</sub></u> |
| 12. carbon monoxide          | <u>CO</u>   | 37. dinitrogen monoxide       | <u>N<sub>2</sub>O</u>                            |
| 13. silicon dioxide          | <u>SiO<sub>2</sub></u>                            | 38. ferric oxide              | <u>Fe<sub>2</sub>O<sub>3</sub></u>               |
| 14. copper (I) bromide       | <u>CuBr</u>                                       | 39. gold (III) chloride       | <u>AuCl<sub>3</sub></u>                          |
| 15. iron (II) chromate       | <u>FeCrO<sub>4</sub></u>                          | 40. strontium sulfide         | <u>SrS</u>                                       |
| 16. mercury (I) fluoride     | <u>Hg<sub>2</sub>F<sub>2</sub></u>                | 41. uranium (VI) fluoride     | <u>UF<sub>6</sub></u>                            |
| 17. carbon tetrachloride     | <u>CCl<sub>4</sub></u>                            | 42. lead (II) bicarbonate     | <u>Pb(HCO<sub>3</sub>)<sub>2</sub></u>           |
| 18. carbon dioxide           | <u>CO<sub>2</sub></u>                             | 43. stannic fluoride          | <u>SnF<sub>4</sub></u>                           |
| 19. cobalt (II) chloride     | <u>CoCl<sub>2</sub></u>                           | 44. sodium dichromate         | <u>Na<sub>2</sub>Cr<sub>2</sub>O<sub>7</sub></u> |
| 20. aluminum carbonate       | <u>Al<sub>2</sub>(CO<sub>3</sub>)<sub>3</sub></u> | 45. water                     | <u>H<sub>2</sub>O</u>                            |
| 21. diphosphorus pentaoxide  | <u>P<sub>2</sub>O<sub>5</sub></u>                 | 46. lead (II) peroxide        | <u>PbO<sub>2</sub></u>                           |
| 22. cesium oxalate           | <u>Cs<sub>2</sub>C<sub>2</sub>O<sub>4</sub></u>   | 47. calcium carbide           | <u>Ca<sub>2</sub>C</u>                           |
| 23. nickel (II) sulfite      | <u>NiSO<sub>3</sub></u>                           | 48. rubidium chromate         | <u>Rb<sub>2</sub>CrO<sub>4</sub></u>             |
| 24. barium hypochlorite      | <u>Ba(ClO)<sub>2</sub></u>                        | 49. nickel (II) chlorate      | <u>Ni(ClO<sub>3</sub>)<sub>2</sub></u>           |
| 25. phosphorus pentachloride | <u>PCl<sub>5</sub></u>                            | 50. magnesium nitride         | <u>Mg<sub>3</sub>N<sub>2</sub></u>               |

## CHEMISTRY NOMENCLATURE WORKSHEET

- |                             |  |                            |  |
|-----------------------------|--|----------------------------|--|
| 51. ammonium sulfide        | <u>      (NH<sub>4</sub>)<sub>2</sub>S      </u>                           | 74. mercury (I) acetate    | <u>      Hg<sub>2</sub>(C<sub>2</sub>H<sub>3</sub>O<sub>2</sub>)<sub>2</sub>      </u> |
| 52. aluminum phosphide      | <u>      AlP      </u>   | 75. calcium bisulfate      | <u>      Ca(HSO<sub>4</sub>)<sub>2</sub>      </u>                                     |
| 53. zinc dichromate         | <u>      ZnCr<sub>2</sub>O<sub>7</sub>      </u>                           | 76. lithium hydride        | <u>      LiH      </u>   |
| 54. aluminum hydride        | <u>      AlH<sub>3</sub>      </u>   | 77. lithium chlorate       | <u>      LiClO<sub>3</sub>      </u>   |
| 55. strontium phosphate     | <u>      Sr<sub>3</sub>(PO<sub>4</sub>)<sub>2</sub>      </u>              | 78. cupric perchlorate     | <u>      Cu(ClO<sub>4</sub>)<sub>2</sub>      </u>                                     |
| 56. tin (II) phosphate      | <u>      Sn<sub>3</sub>(PO<sub>4</sub>)<sub>2</sub>      </u>              | 79. gold (III) perchlorate | <u>      Au(ClO<sub>4</sub>)<sub>3</sub>      </u>                                     |
| 57. chromium (III) nitrate  | <u>      Cr(NO<sub>3</sub>)<sub>3</sub>      </u>                          | 80. aluminum bisulfite     | <u>      Al(HSO<sub>3</sub>)<sub>3</sub>      </u>                                     |
| 58. cobalt (II) chlorate    | <u>      Co(ClO<sub>3</sub>)<sub>2</sub>      </u>                         | 81. iron (II) phosphate    | <u>      Fe<sub>3</sub>(PO<sub>4</sub>)<sub>2</sub>      </u>                          |
| 59. cesium cyanide          | <u>      CsCN      </u>  | 82. copper (II) chloride   | <u>      CuCl<sub>2</sub>      </u>  |
| 60. bismuth (III) bisulfate | <u>      Bi(HSO<sub>4</sub>)<sub>3</sub>      </u>                         | 83. ammonium nitrate       | <u>      NH<sub>4</sub>NO<sub>3</sub>      </u>  |
| 61. magnesium chlorite      | <u>      Mg(ClO<sub>2</sub>)<sub>2</sub>      </u>                         | 84. mercury (I) sulfate    | <u>      Hg<sub>2</sub>SO<sub>4</sub>      </u>  |
| 62. arsenic trichloride     | <u>      AsCl<sub>3</sub>      </u>  | 85. cesium nitrite         | <u>      CsNO<sub>2</sub>      </u>  |
| 63. tin (II) oxide          | <u>      SnO      </u>   | 86. sodium bisulfate       | <u>      NaHSO<sub>4</sub>      </u>   |
| 64. lead (II) perchlorate   | <u>      Pb(ClO<sub>4</sub>)<sub>2</sub>      </u>                         | 87. hydrochloric acid      | <u>      HCl (aq)      </u>  |
| 65. iron (II) bromide       | <u>      FeBr<sub>2</sub>      </u>  | 88. sulfuric acid          | <u>      H<sub>2</sub>SO<sub>4</sub> (aq)      </u>                                    |
| 66. silver sulfite          | <u>      Ag<sub>2</sub>SO<sub>3</sub>      </u>                            | 89. phosphoric acid        | <u>      H<sub>3</sub>PO<sub>4</sub> (aq)      </u>                                    |
| 67. potassium permanganate  | <u>      KMnO<sub>4</sub>      </u>  | 90. perchloric acid        | <u>      HClO<sub>4</sub> (aq)      </u>   |
| 68. tin (IV) sulfate        | <u>      Sn(SO<sub>4</sub>)<sub>2</sub>      </u>                          | 91. hydrobromic acid       | <u>      HBr (aq)      </u>  |
| 69. cobalt (IV) fluoride    | <u>      CoF<sub>4</sub>      </u>   | 92. tin (IV) permanganate  | <u>      Sn(MnO<sub>4</sub>)<sub>4</sub>      </u>                                     |
| 70. cesium bromate          | <u>      CsBrO<sub>3</sub>      </u>                                       | 93. hydroiodic acid        | <u>      HI (aq)      </u>   |
| 71. iron (III) dichromate   | <u>      Fe<sub>2</sub>(Cr<sub>2</sub>O<sub>7</sub>)<sub>3</sub>      </u> | 94. nitric acid            | <u>      HNO<sub>3</sub> (aq)      </u>  |
| 72. beryllium iodide        | <u>      BeI<sub>2</sub>      </u>   | 95. magnesium dichromate   | <u>      MgCr<sub>2</sub>O<sub>7</sub>      </u>                                       |
| 73. copper (I) carbonate    | <u>      Cu<sub>2</sub>CO<sub>3</sub>      </u>                            |                            |  |



## CHEMISTRY NOMENCLATURE WORKSHEET

Give the names of the following compounds

- |   |                              |  |                                |
|---|------------------------------|--|--------------------------------|
| 1. NaCl   | ___sodium chloride_____      | 23. AgC <sub>2</sub> H <sub>3</sub> O <sub>2</sub>   | ___silver acetate_____         |
| 2. AgNO <sub>3</sub>  | ___silver nitrate_____       | 24. Cr <sub>2</sub> O <sub>3</sub>                   | ___chromium (III) oxide_____   |
| 3. BaCrO <sub>4</sub>   | ___barium chromate_____      | 25. KBr  | ___potassium bromide_____      |
| 4. KOH  | ___potassium hydroxide_____  | 26. Cd(HSO <sub>4</sub> ) <sub>2</sub>               | ___cadmium bisulfate_____      |
| 5. ZnSO <sub>4</sub>  | ___zinc sulfate_____         | 27. CO <sub>2</sub>                                  | ___carbon dioxide_____         |
| 6. MgBr <sub>2</sub>  | ___magnesium bromide_____    | 28. H <sub>2</sub> O <sub>2</sub>                    | ___hydrogen peroxide_____      |
| 7. Al <sub>2</sub> O <sub>3</sub>                                 | ___aluminum oxide_____       | 29. CaSO <sub>4</sub>                                | ___calcium sulfate_____        |
| 8. CdCl <sub>2</sub>  | ___cadmium chloride_____     | 30. Ni <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub>  | ___nickel (II) phosphate_____  |
| 9. NH <sub>4</sub> I  | ___ammonium iodide_____      | 31. AsF <sub>3</sub>                                 | ___arsenic trifluoride_____    |
| 10. Fe(OH) <sub>3</sub>   | ___iron (III) hydroxide_____ | 32. Co <sub>3</sub> (AsO <sub>4</sub> ) <sub>2</sub> | ___cobalt (II) arsenate_____   |
| 11. Ba <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub>               | ___barium phosphate_____     | 33. ZnCr <sub>2</sub> O <sub>7</sub>                 | ___zinc dichromate_____        |
| 12. KClO <sub>3</sub>   | ___potassium chlorate_____   | 34. KCN  | ___potassium cyanide_____      |
| 13. Na <sub>2</sub> CO <sub>3</sub>                               | ___sodium carbonate_____     | 35. Bi(NO <sub>3</sub> ) <sub>3</sub>                | ___bismuth (III) nitrate_____  |
| 14. (NH <sub>4</sub> ) <sub>2</sub> C <sub>2</sub> O <sub>4</sub> | ___ammonium oxalate_____     | 36. CaH <sub>2</sub>                                 | ___calcium hydride_____        |
| 15. (NH <sub>4</sub> ) <sub>2</sub> CO <sub>3</sub>               | ___ammonium carbonate_____   | 37. SnS <sub>2</sub>                                 | ___tin (IV) sulfide_____       |
| 16. NiF <sub>2</sub>  | ___nickel (II) fluoride_____ | 38. Cr <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub>  | ___chromium (III) sulfate_____ |
| 17. Zn(ClO <sub>3</sub> ) <sub>2</sub>                            | ___zinc chlorate_____        | 39. Hg(BrO <sub>3</sub> ) <sub>2</sub>               | ___mercury (II) bromate_____   |
| 18. Ca(OH) <sub>2</sub>   | ___calcium hydroxide_____    | 40. N <sub>2</sub> O <sub>4</sub>                    | ___dinitrogen tetroxide_____   |
| 19. BaSO <sub>3</sub>   | ___barium sulfite_____       | 41. Pb(HCO <sub>3</sub> ) <sub>2</sub>               | ___lead (II) bicarbonate_____  |
| 20. AlCl <sub>3</sub>   | ___aluminum chloride_____    | 42. Na <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub>   | ___sodium dichromate_____      |
| 21. Cu <sub>2</sub> CO <sub>3</sub>                               | ___copper (I) carbonate_____ | 43. PbO <sub>2</sub>                                 | ___lead (IV) oxide_____        |
| 22. FeO   | ___iron (II) oxide_____      | (2 possible names)                                   | ___lead (II) peroxide_____     |