Name: _____
Hour: ____ Date: _____

Chemistry: *Ionic Compounds: Polyatomic Ions*

Write the name of each of the following compounds.

1. NH_4Cl 1. _____
2. $HClO_2$ 2. _____
3. $Ca(BrO_3)_2$ 3. _____
4. $BeSO_4$ 4. _____
5. $(NH_4)_3N$ 5. _____
6. NH_4NO_3 6. _____
7. $Sr_3(PO_4)_2$ 7. _____
8. $Zn(ClO_3)_2$ 8. _____
9. $AgIO_3$ 9. _____
10. $K_2Cr_2O_7$ 10. _____

Write the chemical formula for each of the given names.

11. sodium chromate 11. _____
12. barium nitrate 12. _____
13. ammonium sulfate 13. _____
14. aluminum hydroxide 14. _____
15. calcium phosphate 15. _____
16. cesium cyanide 16. _____
17. sodium nitrite 17. _____
18. calcium acetate 18. _____
19. beryllium chlorite 19. _____
20. rubidium sulfite 20. _____

Name: _____
Hour: ____ Date: _____

Chemistry: *Ionic Compounds: Polyatomic Ions with Multiple-Charge Cations*

Write the name of each of the following compounds.

1. $V(ClO_3)_5$ 1. _____
2. $Re(SO_4)_3$ 2. _____
3. $Os(IO_3)_3$ 3. _____
4. $Ir_3(PO_4)_4$ 4. _____
5. $Pd(SO_3)_2$ 5. _____
6. $AuNO_3$ 6. _____
7. $FePO_3$ 7. _____
8. $Ni(BrO_3)_2$ 8. _____
9. $Pb(CN)_4$ 9. _____
10. $Mn_2(Cr_2O_7)_7$ 10. _____

Write the chemical formula for each of the given names.

11. copper (II) hydroxide 11. _____
12. rhenium (VI) nitrate 12. _____
13. niobium (III) sulfate 13. _____
14. platinum (IV) iodate 14. _____
15. molybdenum (III) phosphate 15. _____
16. titanium (II) cyanide 16. _____
17. gold (I) thiosulfate 17. _____
18. iron (III) acetate 18. _____
19. cobalt (II) chlorite 19. _____
20. tin (IV) sulfite 20. _____

KEY

Chemistry: *Ionic Compounds: Polyatomic Ions*

Write the name of each of the following compounds.

1. NH_4Cl	1. **ammonium chloride**
2. $HClO_2$	2. **hydrogen chlor*ite***
3. $Ca(BrO_3)_2$	3. **calcium brom*ate***
4. $BeSO_4$	4. **berrylium sulf*ate***
5. $(NH_4)_3N$	5. **ammonium nitride**
6. NH_4NO_3	6. **ammonium nitr*ate***
7. $Sr_3(PO_4)_2$	7. **strontium phosph*ate***
8. $Zn(ClO_3)_2$	8. **zinc chlor*ate***
9. $AgIO_3$	9. **silver iod*ate***
10. $K_2Cr_2O_7$	10. **potassium dichrom*ate***

Write the chemical formula for each of the given names.

11. sodium chromate	Na^{1+} CrO_4^{2-}	11. Na_2CrO_4
12. barium nitrate	Ba^{2+} NO_3^{1-}	12. $Ba(NO_3)_2$
13. ammonium sulfate	NH_4^{1+} SO_4^{2-}	13. $(NH_4)_2SO_4$
14. aluminum hydroxide	Al^{3+} OH^{1-}	14. $Al(OH)_3$
15. calcium phosphate	Ca^{2+} PO_4^{3--}	15. $Ca_3(PO_4)_2$
16. cesium cyanide	Cs^{1+} CN^{1-}	16. $CsCN$
17. sodium nitrite	Na^{1+} NO_2^{1-}	17. $NaNO_2$
18. calcium acetate	Ca^{2+} CH_3COO^{1-}	18. $Ca(CH_3COO)_2$
19. beryllium chlorite	Be^{2+} ClO_2^{1-}	19. $Be(ClO_2)_2$
20. rubidium sulfite	Rb^{1+} SO_3^{2-}	20. Rb_2SO_3

KEY

Chemistry: *Ionic Compounds: Polyatomic Ions with Multiplie-Charge Cations*

Write the name of each of the following compounds.

1. $V(ClO_3)_5$	V^{5+}	**5** ClO_3^{1-}	1. **vanadium (V) chlor*ate***
2. $Re(SO_4)_3$	Re^{6+}	**3** SO_4^{2-}	2. **rhenium (VI) sulf*ate***
3. $Os(IO_3)_3$	Os^{3+}	**3** IO_3^{1-}	3. **osmium (III) iod*ate***
4. $Ir_3(PO_4)_4$	**3** Ir^{4+}	**4** PO_4^{3-}	4. **iridium (IV) phosph*ate***
5. $Pd(SO_3)_2$	Pd^{4+}	**2** SO_3^{2-}	5. **palladium (IV) sulf*ite***
6. $AuNO_3$	Au^{1+}	NO_3^{1-}	6. **gold (I) nitr*ate***
7. $FePO_3$	Fe^{3+}	PO_3^{3-}	7. **iron (III) phosph*ite***
8. $Ni(BrO_3)_2$	Ni^{2+}	**2** BrO_3^{1-}	8. **nickel (II) brom*ate***
9. $Pb(CN)_4$	Pb^{4+}	**2** CN^{1-}	9. **lead (IV) cyanide**
10. $Mn_2(Cr_2O_7)_7$	**2** Mn^{7+}	**7** $Cr_2O_7^{2-}$	10. **manganese (VII) dichrom*ate***

Write the chemical formula for each of the given names.

11. copper (II) hydroxide	Cu^{2+}	OH^{1-}		11. **$Cu(OH)_2$**
12. rhenium (VI) nitrate	Re^{6+}	NO_3^{1-}		12. **$Re(NO_3)_6$**
13. niobium (III) sulfate	Nb^{3+}	SO_4^{2-}		13. **$Nb_2(SO_4)_3$**
14. platinum (IV) iodate	Pt^{4+}	IO_3^{1-}		14. **$Pt(IO_3)_4$**
15. molybdenum (III) phosphate	Mo^{3+}	PO_4^{3-}	**$Mo_3(PO_4)_3$**	15. **$MoPO_4$**
16. titanium (II) cyanide	Ti^{2+}	CN^{1-}		16. **$Ti(CN)_2$**
17. gold (I) thiosulfate	Au^{1+}	$S_2O_3^{2-}$		17. **$Au_2S_2O_3$**
18. iron (III) acetate	Fe^{3+}	CH_3COO^{1-}		18. **$Fe(CH_3COO)_3$**
19. cobalt (II) chlorite	Co^{2+}	ClO_2^{1-}		19. **$Co(ClO_2)_2$**
20. tin (IV) sulfite	Sn^{4+}	SO_3^{2-}	**$Sn_2(SO_3)_4$**	20. **$Sn(SO_3)_2$**