Name _____ Date_____ Block ___

Naming Compounds Test Review Practice

Name the following ionic compounds:

1) NH_4Cl _____
2) $Fe(NO_3)_3$ _____
3) $TiBr_3$ _____
4) Cu_3P _____
5) $SnSe_2$ _____
6) GaAs _____
7) $Pb(SO_4)_2$ _____
8) $Be(HCO_3)_2$ _____
9) $Mn_2(SO_3)_3$ _____
10) $Al(CN)_3$ _____

Write the formulas for the following compounds:

11) chromium (VI) phosphate _____
12) vanadium (IV) carbonate _____
13) tin (II) nitrite _____
14) cobalt (III) oxide _____
15) titanium (II) acetate _____
16) vanadium (V) sulfide _____
17) chromium (III) hydroxide _____
18) lithium iodide_____
19) lead (II) nitride _____
20) silver bromide _____
21) NaBr _____
22) $Sc(OH)_3$ _____
23) $V_2(SO_4)_3$ _____
24) NH_4F _____
25) $CaCO_3$ _____
26) $NiPO_4$ _____
27) Li_2SO_3 _____
28) Zn_3P_2 _____
29) $Sr(C_2H_3O_2)_2$ _____
30) Cu_2O _____
31) Ag_3PO_4 _____

Name _____ Date_____ Block ___

32) $YClO_3$ _____

33) SnS_2 _____

34) $Ti(CN)_4$ _____

35) $KMnO_4$ _____

36) Pb_3N_2 _____

37) $CoCO_3$ _____

38) $CdSO_3$ _____

39) $Cu(NO_2)_2$ _____

40) $Fe(HCO_3)_2$ _____

Write the formulas for the following ionic compounds:

41) lithium acetate _____

42) iron (II) phosphate _____

43) titanium (II) selenide _____

44) calcium bromide _____

45) gallium chloride _____

46) sodium hydride _____

47) beryllium hydroxide _____

48) zinc carbonate _____

49) manganese (VII) arsenide _____

50) copper (II) chlorate _____

51) cobalt (III) chromate _____

52) ammonium oxide _____

53) potassium hydroxide _____

54) lead (IV) sulfate _____

55) silver cyanide _____

56) vanadium (V) nitride _____

57) strontium acetate _____

58) molybdenum sulfate _____

59) platinum (II) sulfide _____

60) ammonium sulfate _____

61) NaBr _____

62) $Ca(C_2H_3O_2)_2$ _____

63) P_2O_5 _____

64) $Ti(SO_4)_2$ _____

65) $FePO_4$ _____

Name _____ Date_____ Block ___

66) K_3N _____

67) SO_2 _____

68) CuOH _____

69) $Zn(NO_2)_2$ _____

70) V_2S_3 _____

Write the formulas for the following chemical compounds:

71) silicon dioxide _____

72) nickel (III) sulfide _____

73) manganese (II) phosphate _____

74) silver acetate _____

75) diboron tetrabromide _____

76) magnesium sulfate heptahydrate _____

77) potassium carbonate _____

78) ammonium oxide _____

79) tin (IV) selenide _____

80) carbon tetrachloride _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

81) Which of the following pairs of elements would most likely form a ionic compound?
A) Ca and Ni
B) Cu and Ar
C) F and S
D) Zn and K
E) Na and Cl

82) Electronegativity is a concept that is useful along with other concepts in _____.
A) deciding how many electrons are involved in bonding
B) deciding if double bonds are present in a molecule
C) formulating a statement of the octet rule
D) determining the number of single bonds present in a molecule
E) predicting the polarity of a bond

83) Which statement about electronegativity is incorrect?
A) Within a periodic table group, electronegativity increases from bottom to top.
B) Metals generally have higher electronegativity values than nonmetals.
C) Within a periodic table row, electronegativity increases from left to right.
D) Fluorine is the most electronegative atom of all the elements.

Name _____ Date_____ Block ___

84) Which of the following pairs is incorrectly matched? formula bond type
A) CuO ionic
B) BBr_3 nonpolar covalent
C) CCl_4 polar covalent
D) KCl ionic
E) IF nonpolar covalent 1

85) Which of the following pairs is incorrectly matched? formula bond type
A) MgO ionic
B) CoS ionic
C) CH_4 polar covalent
D) NF_3 polar covalent
E) N_2 nonpolar covalent

87) Elements in groups IIA and VA of the periodic table possess, respectively, how many valence electrons?
A) 2 and 6
B) 2 and 2
C) 6 and 2
D) 3 and 4
E) 2 and 5

88) Which of the following statements about the noble gases is incorrect?
A) All have very stable electron arrangements.
B) They are the most reactive of all gases.
C) All have 8 valence electrons.
D) All exist in nature as individual atoms rather than molecular form.

89) Which of the following statements concerning double covalent bonds is correct?
A) They always involve the sharing of 2 electron pairs.
B) They are found only in molecules containing polyatomic ions.
C) They occur only between atoms containing 4 valence electrons.
D) They are found only in molecules containing S.

Name the following acids and bases:

90) NaOH _____

91) H_2SO_3 _____

92) H_2S _____

93) H_3P _____

94) H_3PO_4 _____

95) NH_3 _____

96) HCN _____

97) $Ca(OH)_2$ _____

98) $Fe(OH)_3$ _____

Write the formulas of the following acids and bases:

Name _____ Date_____ Block ___

99) hydrobromic acid _____

100) hydrofluoric acid _____

101) carbonic acid _____

102) lithium hydroxide _____

103) nitrous acid _____

104) cobalt (II) hydroxide _____

105) sulfuric acid _____

106) beryllium hydroxide _____

Name _____ Date_____ Block ___

Solutions for the Naming Ionic Compounds Practice Worksheet

1) ammonium chloride
2) iron (III) nitrate
3) titanium (III) bromide
4) copper (I) phosphide
5) tin (IV) selenide
6) gallium arsenide
7) lead (IV) sulfate
8) beryllium bicarbonate
9) manganese (III) sulfite
10) aluminum cyanide

11) $Cr(PO_4)_2$
12) $V(CO_3)_2$
13) $Sn(NO_2)_2$
14) Co_2O_3
15) $Ti(C_2H_3O_2)_2$
16) V_2S_5
17) $Cr(OH)_3$
18) LiI
19) Pb_3N_2
20) AgBr

21) $NaBr$ **sodium bromide**
22) $Sc(OH)_3$ **scandium (III) hydroxide**
23) $V_2(SO_4)_3$ **vanadium (III) sulfate**
24) NH_4F **ammonium fluoride**
25) $CaCO_3$ **calcium carbonate**
26) $NiPO_4$ **nickel (III) phosphate**
27) Li_2SO_3 **lithium sulfite**
28) Zn_3P_2 **zinc phosphide**
29) $Sr(C_2H_3O_2)_2$ **strontium acetate**
30) Cu_2O **copper (I) oxide**
31) Ag_3PO_4 **silver phosphate**
32) $YClO_3$ **yttrium (I) chlorate**
33) SnS_2 **tin (IV) sulfide**
34) $Ti(CN)_4$ **titanium (IV) cyanide**
35) $KMnO_4$ **potassium permanganate**
36) Pb_3N_2 **lead (II) nitride**
37) $CoCO_3$ **cobalt (II) carbonate**
38) $CdSO_3$ **cadmium sulfite**
39) $Cu(NO_2)_2$ **copper (II) nitrite**
40) $Fe(HCO_3)_2$ **iron (II) bicarbonate**

Name the following chemical compounds:

41) lithium acetate **$LiC_2H_3O_2$**
42) iron (II) phosphate **$Fe_3(PO_4)_2$**
43) titanium (II) selenide **TiSe**

Name _____ Date_____ Block ___

44) calcium bromide **$CaBr_2$**
45) gallium (III) chloride **$GaCl_3$**
46) sodium hydride **NaH**
47) beryllium hydroxide **$Be(OH)_2$**
48) zinc carbonate **$ZnCO_3$**
49) manganese (VII) arsenide **Mn_3As_7**
50) copper (II) chlorate **$Cu(ClO_3)_2$**
51) cobalt (III) chromate **$Co_2(CrO_4)_3$**
52) ammonium oxide **$(NH_4)_2O$**
33) potassium hydroxide **KOH**
54) lead (IV) sulfate **$Pb(SO_4)_2$**
55) silver cyanide **$AgCN$**
56) vanadium (V) nitride **V_3N_5**
57) strontium acetate **$Sr(C_2H_3O_2)_2$**
58) molybdenum (VI) sulfate **$Mo(SO_4)_3$**
59) platinum (II) sulfide **PtS**
60) ammonium sulfate **$(NH_4)_2SO_4$**
61) $NaBr$ **sodium bromide**
62) $Ca(C_2H_3O_2)_2$ **calcium acetate**
63) P_2O_5 **diphosphorus pentoxide**
64) $Ti(SO_4)_2$ **titanium(IV) sulfate**
65) $FePO_4$ **iron (III) phosphate**
66) K_3N **potassium nitride**
67) SO_2 **sulfur dioxide**
68) $CuOH$ **copper (I) hydroxide**
69) $Zn(NO_2)_2$ **zinc nitrite**
70) V_2S_3 **vanadium (III) sulfide**

Write the formulas for the following chemical compounds:

71) silicon dioxide **SiO_2**
72) nickel (III) sulfide **Ni_2S_3**
73) manganese (II) phosphate **$Mn_3(PO_4)_2$**
74) silver acetate **$AgC_2H_3O_2$**
75) diboron tetrabromide **B_2Br_4**
76) magnesium sulfate heptahydrate **$MgSO_4 \cdot 7H_2O$**
77) potassium carbonate **K_2CO_3**
78) ammonium oxide **$(NH_4)_2O$**
79) tin (IV) selenide **$SnSe_2$**
80) carbon tetrachloride **CCl_4**

81) Which of the following pairs of elements would most likely form a ionic compound?
A) Ca and Ni (both metals)
B) Cu and Ar (Noble gases normally do not bond)
C) F and S (both non-metals)
D) Zn and K (both metals
E) Na and Cl

Name _____ Date_____ Block ___

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D) They are found only in molecules containing S.

Name the following acids and bases:

90) NaOH sodium hydroxide
91) H_2SO_3 sulfurous acid
92) H_2S hydrosulfuric acid

Name _____ Date_____ Block ___

93) H_3P hydrophosphoric acid
94) H_3PO_4 phosphoric acid
95) NH_3 ammonia
96) HCN hydrocyanic acid
97) $Ca(OH)_2$ calcium hydroxide
98) $Fe(OH)_3$ iron (III) hydroxide

Write the formulas of the following acids and bases:

99) hydrobromic acid HBr
100)hydrofluoric acid HF
101) carbonic acid H_2CO_3
102) lithium hydroxide LiOH
103) nitrous acid HNO_2
104) cobalt (II) hydroxide $Co(OH)_2$
105) sulfuric acid H_2SO_4
106) beryllium hydroxide $Be(OH)_2$