

Name: _____

Naming Ionic Compounds Practice

Steps for writing the names of Ionic Compounds

1. Identify what type of ionic compound it is:
 - a. Binary Type 1- metal and nonmetal, NO TRANSITION METALS (except Zn, Ag, Cd)
 - i. Write the metal name
 - ii. Write the nonmetal with an "ide" ending
 - b. Binary Type 2- TRANSITION METAL (except Zn, Ag, Cd) and nonmetal
 - i. Write the metal name
 - ii. Determine the metal charge and put it in roman numerals with parentheses, ex. cobalt (III)
 - iii. Write the nonmetal with an "ide" ending
 - c. Ternary- Includes a polyatomic ion
 - i. Write the cation name (determine if it's a metal, transition metal or polyatomic ion)
 1. If a metal or polyatomic ion, just write name
 2. If transition metal, determine the metal charge and put it in roman numerals with parentheses, ex. cobalt (III)
 - ii. Write the anion name (determine if it's a nonmetal or polyatomic ion)
 1. If nonmetal, write name with "ide" ending
 2. If polyatomic ion, write polyatomic ion name

TABLE 4.4

Names of Common Polyatomic Ions

Ion	Name	Ion	Name
NH_4^+	ammonium	CO_3^{2-}	carbonate
NO_2^-	nitrite	HCO_3^-	hydrogen carbonate (bicarbonate is a widely used common name)
NO_3^-	nitrate		
SO_3^{2-}	sulfite		
SO_4^{2-}	sulfate	ClO^-	hypochlorite
HSO_4^-	hydrogen sulfate (bisulfate is a widely used common name)	ClO_2^-	chlorite
		ClO_3^-	chlorate
		ClO_4^-	perchlorate
OH^-	hydroxide	$\text{C}_2\text{H}_3\text{O}_2^-$	acetate
CN^-	cyanide	MnO_4^-	permanganate
PO_4^{3-}	phosphate	$\text{Cr}_2\text{O}_7^{2-}$	dichromate
HPO_4^{2-}	hydrogen phosphate	CrO_4^{2-}	chromate
H_2PO_4^-	dihydrogen phosphate	O_2^{2-}	peroxide

Write the name for each of the given ionic formulas

1. NaBr _____
2. Bi₂O₅ _____
3. AlP _____
4. CrO₃ _____
5. BaI₂ _____
6. Pb₃(PO₄)₂ _____
7. Cu₂CO₃ _____
8. Fe(C₂H₃O₂)₂ _____
9. CaSO₄ _____
10. Mg(HCO₃)₂ _____
11. Ba(ClO₂)₂ _____
12. Al(OH)₃ _____
13. CuF₂ _____
14. K₂CO₃ _____
15. MgCl₂ _____
16. Be(OH)₃ _____
17. SrS _____
18. Cu₂S _____
19. ZnI₂ _____
20. Ca₃(PO₄)₂ _____
21. NH₄I _____
22. Mn(NO₃)₃ _____
23. FePO₄ _____
24. Pb(SO₄)₂ _____
25. MgCl₂ _____
26. Ca(OH)₂ _____
27. Al₂S₃ _____
28. FeCl₂ _____
29. FeCl₃ _____
30. FeSO₄ _____
31. Pb(SO₃)₂ _____
32. Ca(C₂H₃O₂)₂ _____
33. NH₄Cl _____
34. ZnI₂ _____
35. AgCl _____
36. CuO _____
37. CuCl₂ _____
38. CuCO₃ _____
39. NaF _____
40. K₂S _____