

9

CHEMICAL NAMES AND FORMULAS

Practice Problems

In your notebook, solve the following problems.

SECTION 9.1 NAMING IONS

- What is the charge on the ion typically formed by each element?

a. oxygen	c. sodium	e. nickel, 2 electrons lost
b. iodine	d. aluminum	f. magnesium
- How many electrons does the neutral atom gain or lose when each ion forms?

a. Cr^{3+}	c. Li^+	e. Cl^-
b. P^{3-}	d. Ca^{2+}	f. O^{2-}
- Name each ion. Identify each as a cation or an anion.

a. Sn^{2+}	c. Br^-	e. H^-
b. Co^{3+}	d. K^+	f. Mn^{2+}
- Write the formula (including charge) for each ion. Use Table 9.3 if necessary.

a. carbonate ion	c. sulfate ion	e. chromate ion
b. nitrite ion	d. hydroxide ion	f. ammonium ion
- Name the following ions. Identify each as a cation or an anion.

a. CN^-	c. PO_4^{3-}	e. Ca^{2+}
b. HCO_3^-	d. Cl^-	f. SO_3^{2-}

SECTION 9.2 NAMING AND WRITING FORMULAS FOR IONIC COMPOUNDS

- Write the formulas for these binary ionic compounds.

a. magnesium oxide	c. potassium iodide	e. sodium sulfide
b. tin(II) fluoride	d. aluminum chloride	f. ferric bromide
- Write the formulas for the compounds formed from these pairs of ions.

a. Ba^{2+} , Cl^-	c. Ca^{2+} , S^{2-}	e. Al^{3+} , O^{2-}
b. Ag^+ , I^-	d. K^+ , Br^-	f. Fe^{2+} , O^{2-}
- Name the following binary ionic compounds.

a. MnO_2	c. CaCl_2	e. NiCl_2	g. CuCl_2
b. Li_3N	d. SrBr_2	f. K_2S	h. SnCl_4