Name _____ Date _____ Class _____

7–1 Review and Reinforcement

Ionic Bonding

Complete each of the following sentences by filling in the appropriate word or phrase from the list below.

negative	noble gas	octet	electron configuration
positive	electrons	ions	polyatomic
crisscross	anion	cation	empirical formula

1. An ionic bond is an attraction between oppositely charged _____.
2. Anions have a _____ charge.
3. An atom becomes an ion by losing or gaining _____.
4. The _____ rule states that atoms tend to gain, lose, or share electrons in order to acquire a full set of valence electrons.
5. When sodium and chlorine form an ionic bond, both ions acquire the electron configuration of a(n) _____.
6. The atoms that make up _____ ions are bonded together by covalent bonds.
7. The _____ method can be used to write the formula for an ionic compound.
8. The _____ of a compound denotes the ratio of ions in the compound.

If the statement is true, write "true." If it is false, change the underlined word or words to make it true. Write your answer on the line.

_____ 9. Calcium becomes a monatomic cation by <u>gaining</u> two electrons.

_____ 10. A cation has a <u>positive</u> charge.

_____ 11. A binary ionic compound contains only <u>one</u> kind of cation and one kind of anion.

_____ 12. <u>Monatomic</u> ions consist of more than one atom.

_____ 13. The Lewis dot diagram for chlorine, a group 7A element, has <u>six</u> electrons.

_____ 14. A great deal of energy is <u>produced</u> when an ionic compound is formed.

Name _____ Date _____ Class _____

7–1 Review and Reinforcement (continued)

Draw the Lewis dot diagram for each of the following elements.

15. B

16. Cl

17. O

18. Ne

19. Si

20. Na

21. Al

22. Mg

Write the chemical formula for each of the following ionic compounds.

_____ **23.** aluminum sulfide

_____ **24.** ammonium carbonate

_____ **25.** calcium oxide

_____ **26.** strontium chloride

_____ **27.** potassium oxide

_____ **28.** sodium fluoride