Name _____ Class _____ Date _____

What is an oxidation number?

Lesson Review

Write *true* if the statement is true. If the statement is false, change the underlined term to make the statement true. Write your answers in the spaces provided.

_____ **1.** The electrons in the outermost energy level of an atom are called valence electrons.

_____ **2.** An atom that gains electrons has a positive oxidation number.

_____ **3.** The oxidation numbers of the elements in a compound must always total 2.

_____ **4.** Metals usually lose electrons during chemical reactions.

_____ **5.** The number of protons in the outermost energy level of an atom determines how the atom will combine with other atoms.

_____ **6.** The oxidation numbers of elements can be used to predict chemical symbols.

_____ **7.** The chemical formula for sodium chloride is NaCl.

_____ **8.** The elements hydrogen and helium each have one energy level.

_____ **9.** When the second energy level of an atom holds two electrons, it is complete.

_____ **10.** When a chlorine atom gains an electron, it has a negative charge.

Skill Challenge

Skills: *synthesizing, applying concepts*

Use the table below to answer the following questions.

Element	Oxidation Number
Aluminum (Al)	3+
Calcium (Ca)	2+
Chlorine (Cl)	1–
Iron (Fe)	3+

1. How many electrons can a calcium atom lend? _____

2. Which elements listed in the table can borrow an electron? _____

3. Which elements listed in the table can lend three electrons? _____

4. What is the formula for the compound that forms when the metal iron combines with the nonmetal chlorine? _____