

**CHAPTER REVIEW****Chapter 6****Combining Atoms****I. Vocabulary Review**

If the underscored word or phrase makes the sentence true, write "TRUE" in the space provided. If the underscored word or phrase makes the sentence false, write the correct term or phrase in the space provided.

- \_\_\_\_\_ 1. A water molecule has a slightly positive end and a slightly negative end because hydrogen attracts more electrons toward itself.
- \_\_\_\_\_ 2. The oxidation number of an element sometimes can be determined from its family number in the periodic table.
- \_\_\_\_\_ 3. The common name for dihydrogen monoxide is water.
- \_\_\_\_\_ 4. The name of the compound CuO is copper(I) oxide.
- \_\_\_\_\_ 5. When a chemical equation contains the same numbers of electrons on both sides, the equation is balanced.
- \_\_\_\_\_ 6. Chemical equations are balanced by changing subscripts.
- \_\_\_\_\_ 7.  $2\text{CuO} \rightarrow 2\text{Cu} + \text{O}_2$  is an example of a decomposition reaction.
- \_\_\_\_\_ 8.  $\text{X} + \text{Y} \rightarrow \text{XY}$  is an example of a synthesis reaction.

**II. Concept Review**

In the blank, write the word or words that best complete the sentence.

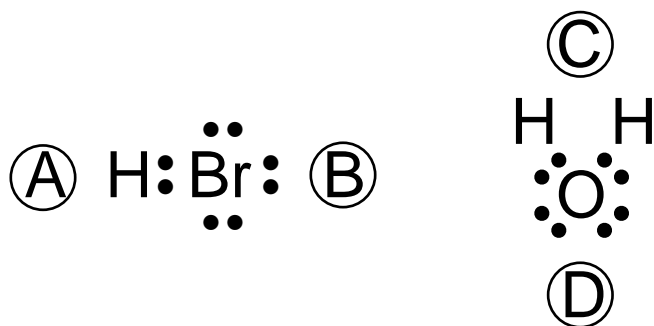
9. The negative ion in  $\text{CrPO}_4$  is classified as a(n) \_\_\_\_\_ ion.
10. The melting point of an ionic compound such as NaCl is usually \_\_\_\_\_ than the melting point of a covalent molecule.
11. Two hydrogen atoms can combine to form a(n) \_\_\_\_\_.
12. The bonds in carbon dioxide are \_\_\_\_\_ bonds.
13. A molecule such as HCl has a(n) \_\_\_\_\_ covalent bond.
14. A molecule such as chlorine gas,  $\text{Cl}_2$ , has a(n) \_\_\_\_\_ covalent bond.
15. The oxidation number of iron in FeS is \_\_\_\_\_.

**III. Skills/Process Review**

Use Figure 1 to answer the following questions.

16. What part of the polar hydrogen bromide molecule has a slight positive charge?

**Chapter Review 6 (continued)**



**FIGURE 1**

17. What part of the polar hydrogen bromide molecule has a slight negative charge?  
\_\_\_\_\_
18. What part of the water molecule has a slight negative charge? \_\_\_\_\_
19. What part of the water molecule has a slight positive charge? \_\_\_\_\_

*In the spaces provided, write the names for the following formulas:*

20.  $\text{CH}_3\text{CO}_2^-$
- $\text{NH}_4^+$
- $\text{NO}_3^-$
- $\text{ClO}_3^-$
- $\text{SO}_4^{2-}$
- $\text{CO}_3^{2-}$
- $\text{PO}_4^{3-}$
- $\text{OH}^-$

21. Use the circled letters to spell out the name of the kind of atoms shown above: \_\_\_\_\_

**IV. EYV Review**

22. **Science and Society: Chemical Detectives** How can forensic chemists help catch arsonists?

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