



**Chapter 6 Chemical Bonds**

6. Circle the letter that identifies the number of ammonium ions needed to form a compound with one phosphate ion. Use the table to help you.

- a. one
- b. two
- c. three**

| Some Polyatomic Ions |                    |                    |                                    |
|----------------------|--------------------|--------------------|------------------------------------|
| Name                 | Formula            | Name               | Formula                            |
| Ammonium             | $\text{NH}_4^+$    | Acetate            | $\text{C}_2\text{H}_3\text{O}_2^-$ |
| Hydroxide            | $\text{OH}^-$      | Peroxide           | $\text{O}_2^{2-}$                  |
| Nitrate              | $\text{NO}_3^-$    | Permanganate       | $\text{MnO}_4^-$                   |
| Sulfate              | $\text{SO}_4^{2-}$ | Hydrogen sulfate   | $\text{HSO}_4^-$                   |
| Carbonate            | $\text{CO}_3^{2-}$ | Hydrogen carbonate | $\text{HCO}_3^-$                   |
| Phosphate            | $\text{PO}_4^{3-}$ | Hydrogen phosphate | $\text{HPO}_4^{2-}$                |

**Describing Molecular Compounds (pages 174–175)**

7. Circle the letter(s) of the information provided by the name and formula of a molecular compound.

- a.** number of atoms in the compound
- b. number of bonds in the compound
- c.** elements in the compound

8. What appears first in the name of a molecular compound? Circle the correct answer.

- a. the least metallic element
- b.** the most metallic element
- c. the polyatomic ion

9. Is the following sentence true or false? The formula for a molecular compound is written with the symbols for the elements in the same order as the elements appear in the name of the compound.

                    
true

10. Circle the letter that identifies the method of naming the number of atoms in molecular compounds.

- a.** prefix
- b. suffix
- c. number