

Chapter Review

USING KEY TERMS

For each pair of terms, explain how the meanings of the terms differ.

1. *ionic compound* and *covalent compound*

2. *acid* and *base*

3. *pH* and *indicator*

4. *hydrocarbon* and *organic compound*

5. *carbohydrate* and *lipid*

6. *protein* and *nucleic acid*

UNDERSTANDING KEY IDEAS MULTIPLE CHOICE

- _____ 7. Which of the following statements describes lipids?
- a. Lipids are used to store energy.
 - b. Lipids do not dissolve in water.
 - c. Lipids make up part of the cell membrane.
 - d. All of the above

Chapter Review *continued*

16. If you dilute a 75 mL can of orange juice with enough water to make a total volume of 300 mL, what is the percentage of juice in the mixture? Show your work below.

CRITICAL THINKING

17. **Concept Mapping** Use the following terms to create a concept map: *acid*, *base*, *salt*, *neutral*, and *pH*.

Chapter Review *continued*

18. **Applying Concepts** Fish give off the base, ammonia, NH_3 , as waste. How does the release of ammonia affect the pH of the water in the aquarium? What can be done to correct the pH of the water?

19. **Analyzing Methods** Many insects, such as fire ants, inject formic acid, a weak acid, when they bite or sting. Describe the type of compound that should be used to treat the bite.

20. **Making Comparisons** Organic compounds are also covalent compounds. What properties would you expect organic compounds to have as a result?

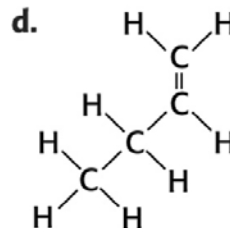
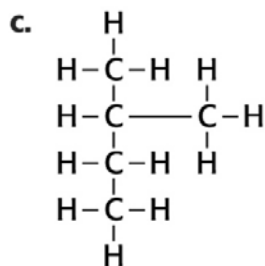
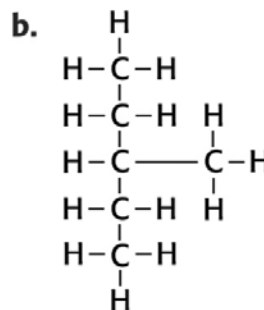
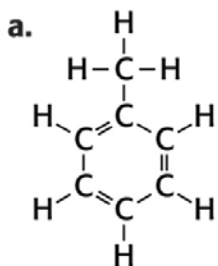
21. **Applying Concepts** Farmers have been known to taste their soil to determine whether the soil has the correct acidity for their plants. How would taste help the farmer determine the acidity of the soil?

Chapter Review *continued*

22. **Analyzing Ideas** A diet that includes a high level of lipids is unhealthy. Why is a diet containing no lipids also unhealthy?

INTERPRETING GRAPHICS

Use the structural formulas below to answer the questions that follow.



23. A saturated hydrocarbon is represented by which structural formula(s)?

24. An unsaturated hydrocarbon is represented by which structural formula(s)?

25. An aromatic hydrocarbon is represented by which structural formula(s)?
