

**CHAPTER 21 STUDY GUIDE**

# Hydrocarbons

## Section 21.1 Introduction to Hydrocarbons

In your textbook, read about natural sources of hydrocarbons and rating gasolines.

In the space at the left, write the word or phrase in parentheses that correctly completes the statement.

- \_\_\_\_\_ 1. (Petroleum, Natural gas) is a mixture of thousands of organic compounds.
- \_\_\_\_\_ 2. The boiling of petroleum and collection of its components is called (sedimentation, fractional distillation).
- \_\_\_\_\_ 3. In the process known as (cracking, knocking), heavier petroleum fractions are converted to gasoline by breaking their large molecules into smaller ones.
- \_\_\_\_\_ 4. A gasoline's ability to burn evenly and prevent knocking is expressed by its (hexane, octane) rating.

Use the diagram of a fractionation tower to answer the following questions.



5. How does the temperature inside the tower vary from bottom to top? \_\_\_\_\_
6. In what physical state is the material collected from pipe A? \_\_\_\_\_
7. What is the material collected from pipe A used for? \_\_\_\_\_
8. What is the material collected from pipe B used for? \_\_\_\_\_
9. Which pipe, A or B, collects hydrocarbons with higher boiling points? \_\_\_\_\_
10. Which pipe, A or B, collects smaller hydrocarbons? \_\_\_\_\_

# Study Guide Hydrocarbons Answer Key

**Rex Miller, Mark Miller**



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