

**CHAPTER**  
**10**

**GEOGRAPHY APPLICATION: PLACE**

*Geography of the Panama Canal*

**Section 4**

*Directions: Read the paragraphs below and study the map carefully. Then answer the questions that follow.*

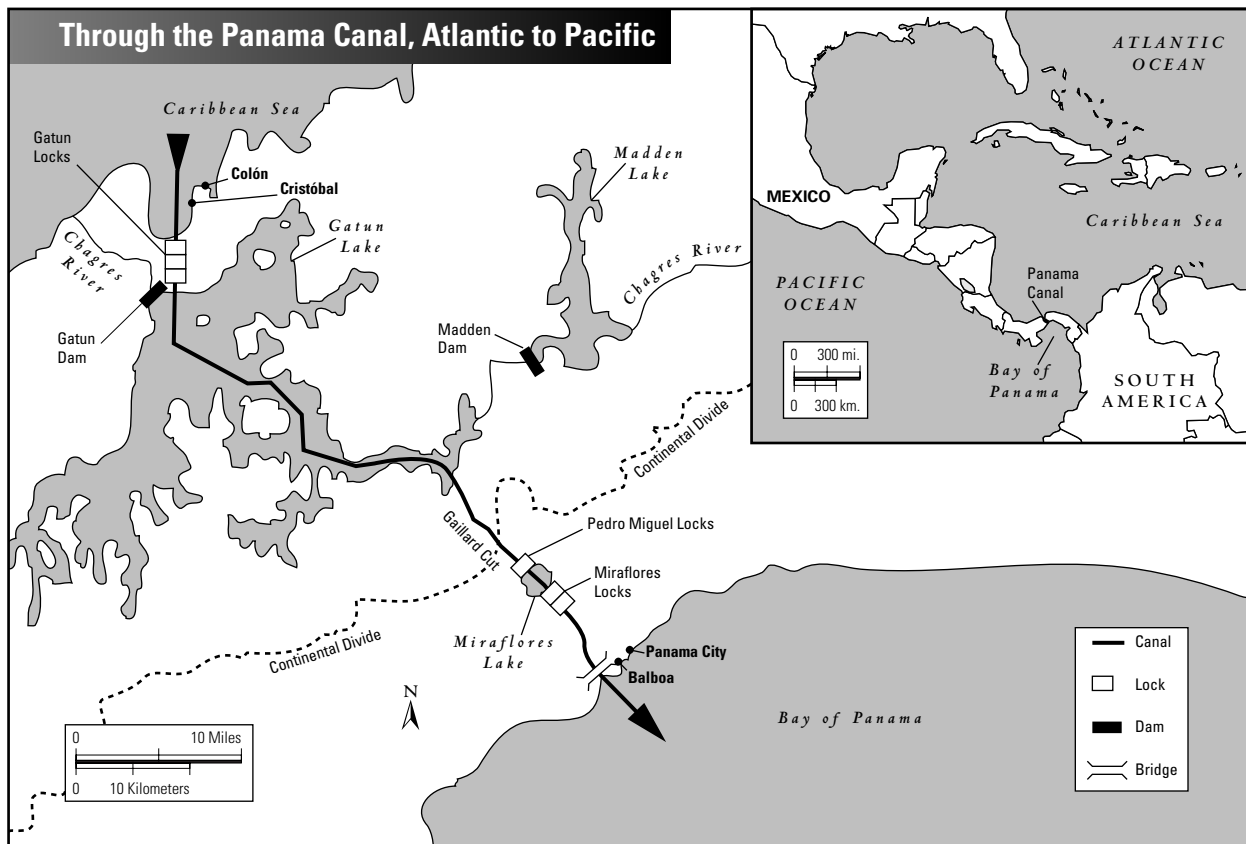
The Panama Canal is essential to the United States. About 12,000 ships a year pass through the canal, 70 percent of them going to or from U.S. ports.

A ship bound from New York to San Francisco, for example, enters the canal from the Caribbean Sea. The ship remains at sea level for the first few miles. Then it comes to a steplike series of three chambers called locks—the Gatun Locks. Each fills with water after the vessel enters, raising it about 28 feet. The three locks lift the ship to the level of Gatun Lake, formed by Gatun Dam. (It takes 26 million gallons of water from Gatun Lake to fill each lock. The lake does not run dry, however,

because the region receives substantial rainfall and because Gatun Lake has backup water stored in Madden Lake.)

The ship crosses Gatun Lake and goes through the Gaillard Cut, a narrow passage cut through hills. Then the ship is taken into the Pedro Miguel Locks and is lowered about 31 feet to Miraflores Lake. At the other side of the lake, the ship enters the two Miraflores Locks. As the water is released for each, the ship is lowered an additional 27 feet.

At sea level again, the ship passes to the Bay of Panama just a few miles away. The eight-hour passage through the Panama Canal has saved nearly 8,000 miles of travel.



**Interpreting Text and Visuals**

1. Use a ruler and the map's scale to find the approximate length of the Panama Canal. \_\_\_\_\_

About how far does a ship travel at sea level when passing through the canal? \_\_\_\_\_

2. How many locks does the canal have? \_\_\_\_\_

3. About how many feet above sea level is Gatun Lake? \_\_\_\_\_

4. Gatun Lake is one of the largest artificial lakes in the world.  
Which river was dammed to create it? \_\_\_\_\_

5. What topographic obstacle made the Gaillard Cut necessary? \_\_\_\_\_  
\_\_\_\_\_

6. It has been noted ironically that although the Atlantic Ocean is east of the Pacific Ocean, a ship passing from the Atlantic to the Pacific travels from west to east through the Panama Canal. Why is this so?  
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About how many miles east of the Atlantic end of the canal is the Pacific end? \_\_\_\_\_

7. When the canal was opened in 1914, most of its cargo and passenger traffic was bound from one U.S. coast to the other. Today, use of the canal is only the eighth most common way of moving U.S. goods and people from coast to coast. What are some of the alternatives that have replaced this ocean route?  
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