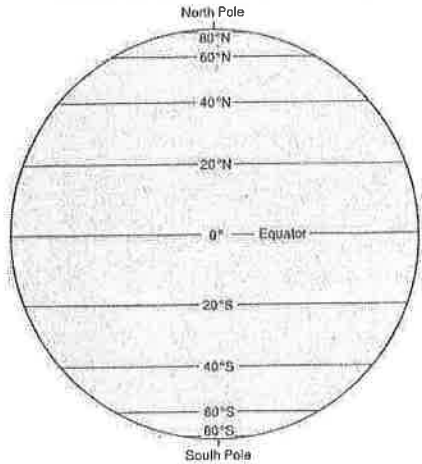


Lesson 5

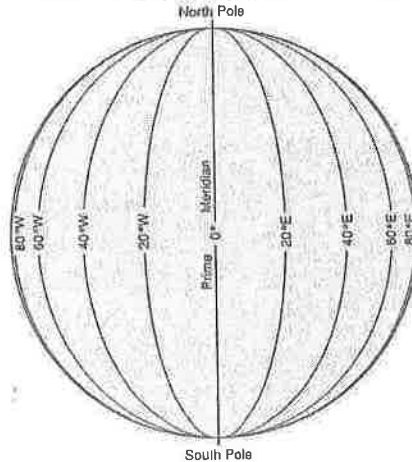
Using Parallels and Meridians

Objective: to use parallels and meridians to find places on a world map

Lines of Latitude (Parallels)



Lines of Longitude (Meridians)



Sextant, also used by navigators to help find ship's location.

Geographers have a system for pinpointing locations everywhere on Earth. They use a **grid** made up of two sets of lines that cross each other, like the lines on graph paper. You can identify any place on Earth by saying which two grid lines cross there.

Latitude One set of lines is called **parallels of latitude**. These lines are called parallels because they stay the same distance apart all the way around the world.

Look at the globe diagram showing parallels. Halfway between the North Pole and the South Pole, runs a special latitude line. What is it called?

1. _____

The **equator** is the starting point for measuring latitude. It is numbered 0° latitude. Latitude lines are labeled with an N or S showing they lie either north or south of the equator. Latitude and longitude are measured in **degrees**. The North Pole the farthest spot north of the equator. It has a latitude of 90° N. What is the farthest spot south of the equator?

2. _____

3. What is its latitude?

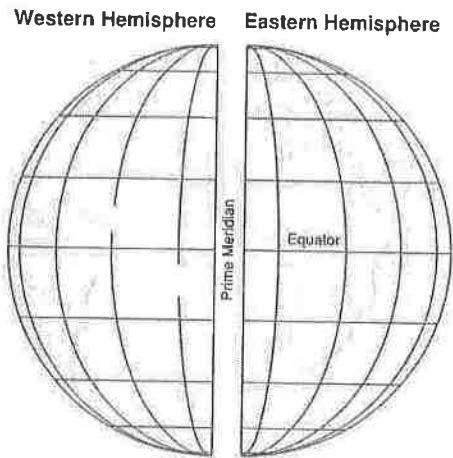
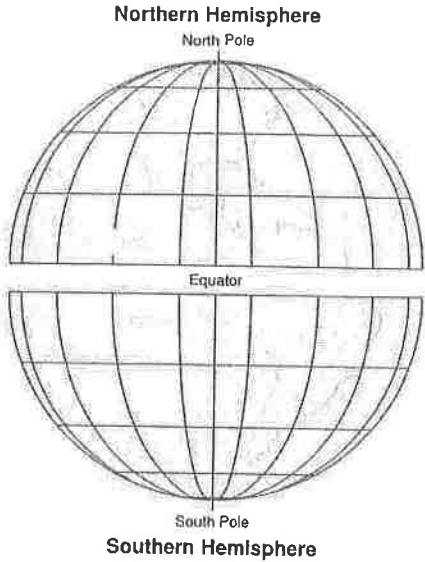
Longitude The other set of lines is called **meridians of longitude**. They are not parallel because they all meet at the North Pole and the South Pole.

The starting place for measuring longitude is a line that runs near London in the United Kingdom. It is numbered 0° longitude. What is it called?

4. _____

Every meridian east of the **Prime Meridian** is east longitude, from 1° East to 179° East. Every meridian west of the Prime Meridian is west longitude, from 1° West to 179° West. Exactly halfway around the world from the Prime Meridian is the meridian 180° . It is just as far east as west from the Prime Meridian. Because of this, it is marked only with a number, and has no east or west label.

Coordinates To pinpoint a location on a map, you name a pair of numbers called coordinates. The coordinates are the number of degrees latitude and degrees longitude of a place. The first coordinate you name is the latitude of a place. The second coordinate you name is the longitude.



Hemispheres As you know, Earth is a sphere. If you cut Earth exactly in half at the equator, you would have two half-spheres, or **hemispheres**. What two hemispheres are formed by dividing Earth at the equator?

5. _____

What two hemispheres are formed by dividing Earth at the Prime Meridian?

6. _____

Use the map on page 11 to answer the following questions about latitude and longitude.

This map does not show a line for each degree of longitude or latitude. To find degrees between the ones shown, you must estimate.

7. In what ocean does the Prime Meridian cross the equator?
 a. Atlantic b. Pacific c. Indian d. Arctic
8. What two continents does the equator cross?
 a. North America and South America
 b. Africa and Europe
 c. Africa and South America
 d. South America and Asia
9. Which one of these continents lies completely in the Southern Hemisphere?
 a. North America c. Asia
 b. South America d. Australia
10. What ocean lies completely in the Eastern Hemisphere?
 a. Atlantic b. Indian c. Pacific d. Arctic
11. What continent lies completely north of the equator and east of the Prime Meridian?
 a. Europe c. Africa
 b. Asia d. North America
12. On what continent would you find the place with a latitude of 20° N and a longitude of 0° ?
 a. South America c. Asia
 b. Africa d. Europe
13. On what continent would you find each of the following locations?
 a. 60° N, 100° W

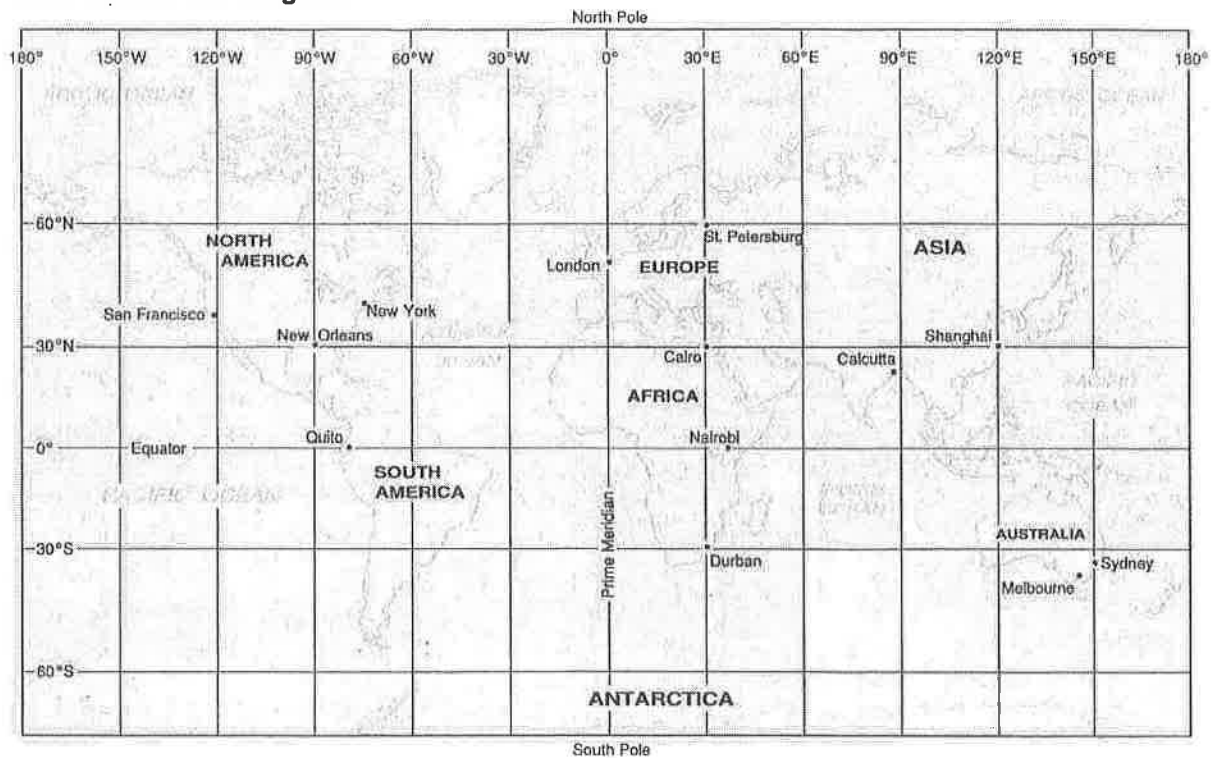
- b. 60° N, 100° E

- c. 20° S, 60° W

- d. 20° N, 20° E

- e. 20° S, 140° E

World Latitude and Longitude



14. Identify the city that lies closest to each pair of coordinates.

a. 30° N, 90° W

b. 30° N, 30° E

c. 60° N, 30° E

15. Give the coordinates for each city.

a. Shanghai, China

b. Durban, South Africa

16. Identify the city with each pair of coordinates.

a. 0° , 78° W

b. 51° N, 0°

c. 38° S, 145° E

17. Estimate the coordinates for each city to the nearest degree.

a. Calcutta, India

b. Nairobi, Kenya

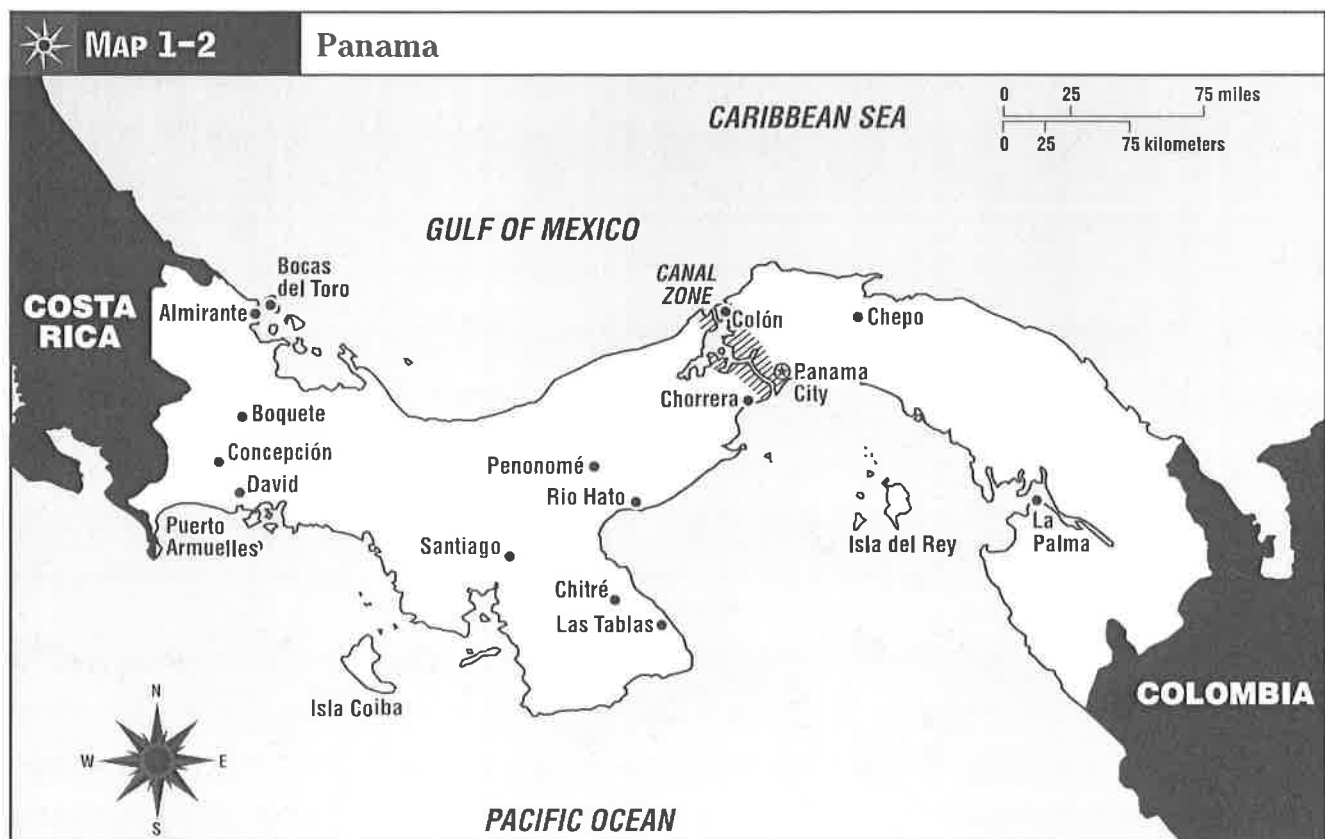
c. New York, New York

Using Your Skills

A PRACTICING MAP SKILLS

Use Map 1-2: Panama below to decide whether each statement about relative location is true or false. Write *T* if the statement is true. Write *F* if the statement is false.

- _____ 1. Panama has water to the north and south.
- _____ 2. The country of Colombia is located to the west of Panama.
- _____ 3. The Caribbean Sea is located to the north of Panama.
- _____ 4. The Canal Zone is located in the central part of Panama.
- _____ 5. When a ship enters the Panama Canal at Colón, it is northwest of the other end of the canal at Panama City.
- _____ 6. Costa Rica is located northwest of Panama.
- _____ 7. According to this map, all parts of the Caribbean Sea are east of the Pacific Ocean.
- _____ 8. The city of Rio Hato is about 300 kilometers west of La Palma.



B PRACTICING MAP SKILLS

Use Map 1-3: The World below to answer the questions about relative location. Use intermediate directions where necessary.

1. Where is the United States located on this map?

2. What country is to the north of the United States? _____
3. What country is to the south of the United States? _____
4. What direction is South Africa from the United States? _____
5. What direction is Australia from the United States? _____
6. In what direction would you travel to go from Japan to the United States? _____
7. In what direction would you travel to go from India to the United Kingdom? _____

