## **MODULE 4**

# "SKIMMING SKILLS" PRACTICE

**FIRST STEP:** Skimming is your ability to look through a document efficiently to find needed information. You do not need to write the answer to each question. Instead, identify in the passage provided on page 2 and 3 where each answer is located.

- 1. What are the two main types of lines that form Earth's grid system?
- 2. Which of the following is true about longitude lines?
- 3. What is the Prime Meridian?
- 4. Latitude lines are also known as:
- 5. Which line serves as 0 degrees latitude?
- 6. When plotting coordinates, which value is mentioned first?
- 7. What does the coordinate 40 degrees N, 75 degrees W indicate?
- 8. How do we visually represent coordinates on a map?
- 9. What is the maximum value that latitude can reach?
- 10. Which of the following professions is LEAST likely to rely heavily on coordinates for navigation?

#### What are Longitude and Latitude Lines?

Imagine Earth as a giant sphere, with horizontal and vertical lines wrapped around it. These lines form a grid system that helps us pinpoint any location on the planet. The two main types of lines are longitude lines and latitude lines.

**Longitude lines** are also known as meridians. They run vertically from the North Pole to the South Pole and measure the east-west position of a place. The Prime Meridian, marked as 0 degrees, divides the Earth into the Eastern Hemisphere and the Western Hemisphere. The values increase towards the east and west, reaching up to 180 degrees on both sides.

**Latitude lines**, on the other hand, are also called parallels. They run horizontally around the Earth and measure the north-south position of a place. The Equator, marked as 0 degrees latitude, divides the Earth into the Northern Hemisphere and the Southern Hemisphere. The values increase towards the North Pole and the South Pole and can go up to 90 degrees in either direction.

Together, the longitude and latitude lines form a global grid that allows us to identify any point on Earth's surface.

### **Plotting Coordinates**

Now that we understand the basics of longitude and latitude lines, let's learn how to plot coordinates. Coordinates provide us with a unique location for any place on Earth.

To plot coordinates, we use a combination of longitude and latitude values. Longitude is always mentioned first, followed by latitude. For example, if we have the coordinates 40 degrees N and 75 degrees W, it means the location is 40 degrees north of the Equator and 75 degrees west of the Prime Meridian.

To visually represent coordinates on a map, we can use a coordinate grid or a system of intersecting longitude and latitude lines. We find the appropriate latitude line on the vertical axis and the longitude line on the horizontal axis. By locating the intersection point of these lines, we can determine the exact position on Earth.

#### **Navigating with Coordinates**

Coordinates are invaluable when it comes to navigating our planet. They help us identify specific locations, whether it's finding your favorite vacation spot or guiding ships across vast oceans.

With the help of longitude and latitude lines, GPS (Global Positioning System) devices, and maps, we can determine our exact location and plan our journeys effectively. Pilots, sailors, hikers, and even explorers rely on coordinates to reach their destinations safely.

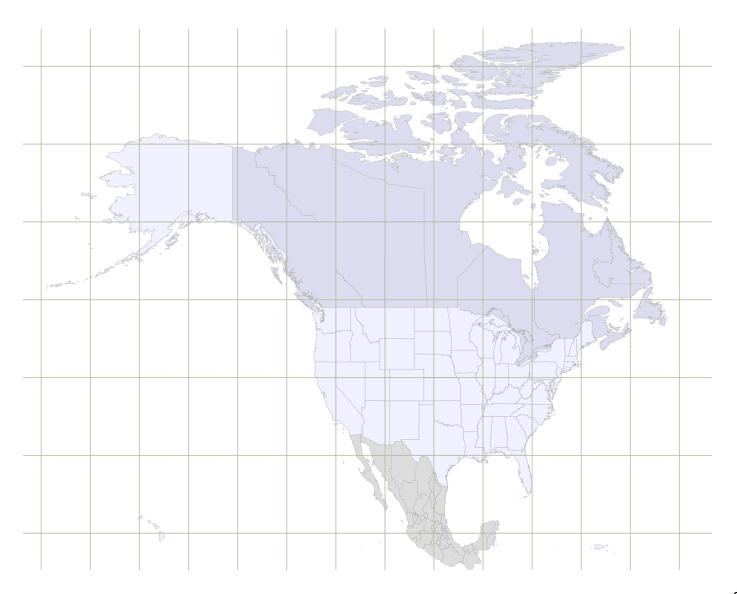
By understanding how to read and plot coordinates using longitude and latitude lines, we unlock the ability to explore the world with precision.

#### Conclusion

Longitude and latitude lines play a crucial role in helping us navigate our planet. By understanding how they work and how to plot coordinates, we can accurately locate any place on Earth. So, the next time you look at a map or use a GPS device, remember that longitude and latitude lines are the key to finding your way around our amazing world.

**NEXT STEP:** Using the map provided, label the following...

North, South, East, West, Latitude Lines, Longitude Lines, Vertical Lines, Horizontal Lines, Parallels, Meridians



NEXT STEP: Using the picture provided, plot the following coordinates using an "X."

- 40 Degrees North, 120 Degrees West (A)
- 15 Degrees North, 100 Degrees West (B)
- 32 Degrees North, 90 Degrees West (C)
- 41 Degrees North, 70 Degrees West (D)
- 35 Degrees North, 115 Degrees West (E)
- 22 Degrees North, 85 Degrees West (F)



#### **CHECK FOR UNDERSTANDING**

**FINAL STEP:** In order to pass **MODULE 4**, you will be asked to take a short quiz using a <u>link</u> provided by your teacher. You must score at least <u>80% or better</u> in order to pass the module.

(NOTE: It would be wise to use the answer keys provided by your teacher to double check all of your modules.)