

Latitude and Longitude

Finding your location throughout
the world!

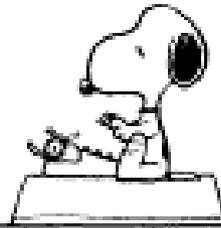
She wanted to live
in Canada.



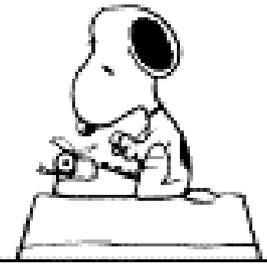
He wanted to live
in Mexico. Thus,
they parted.



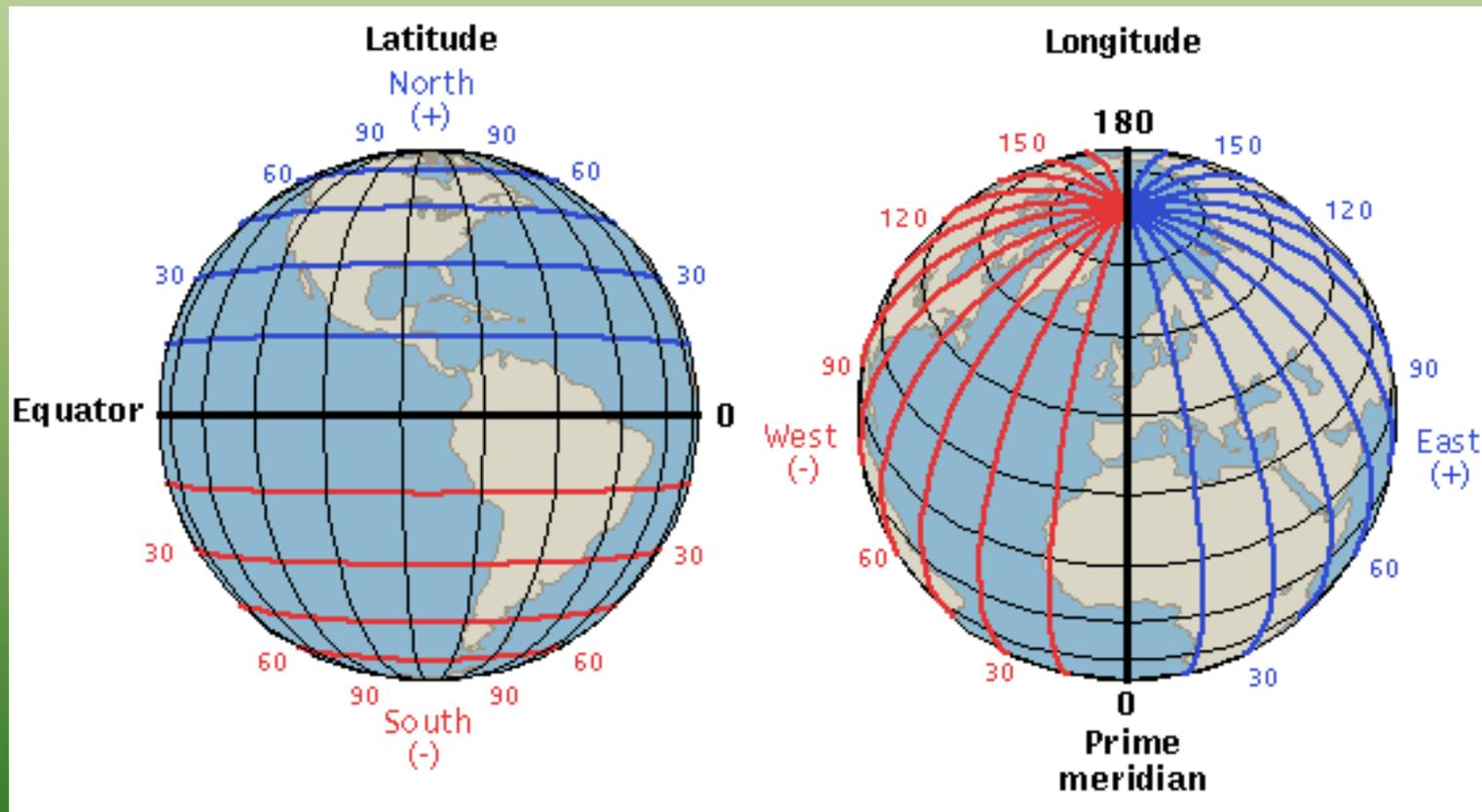
Years later, when
asked the reason,
she replied simply,



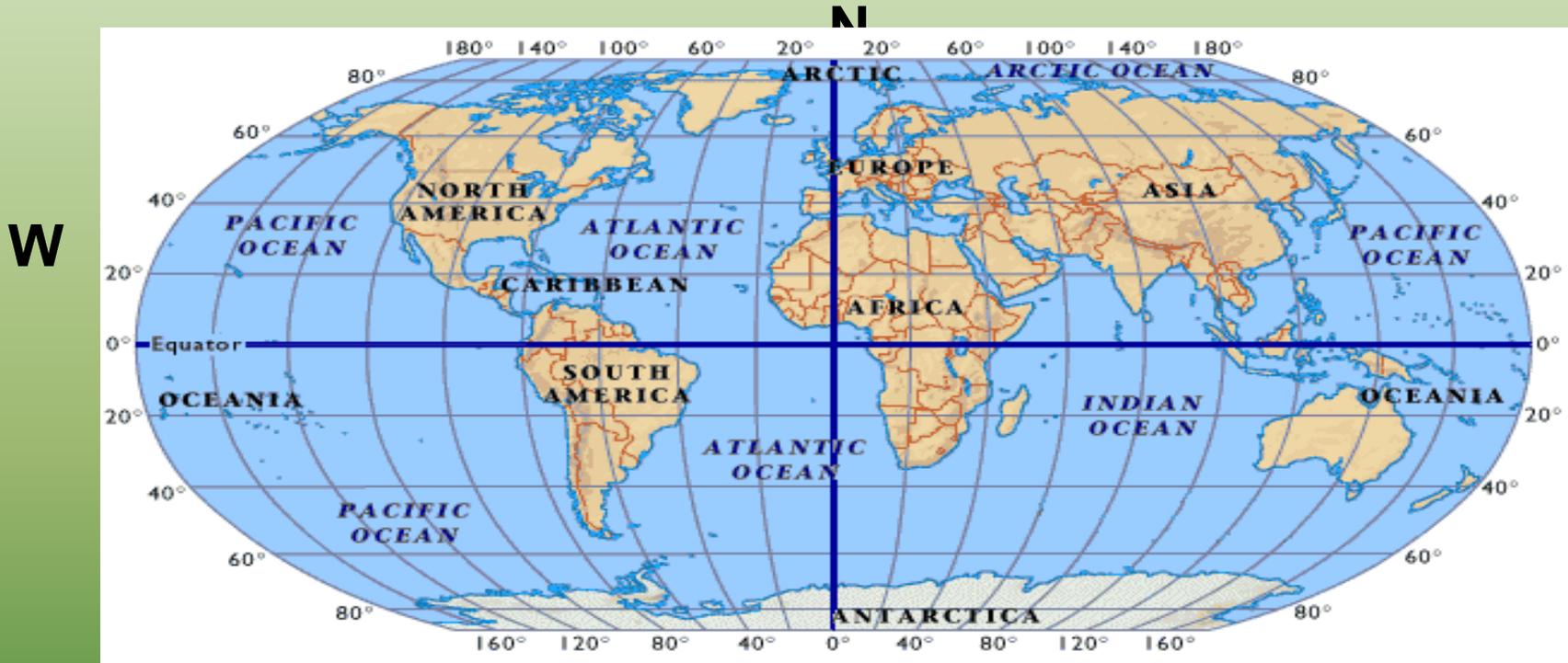
“I just didn’t like
his latitude!”



By combining latitude and longitude, any location can be pinpointed



Application

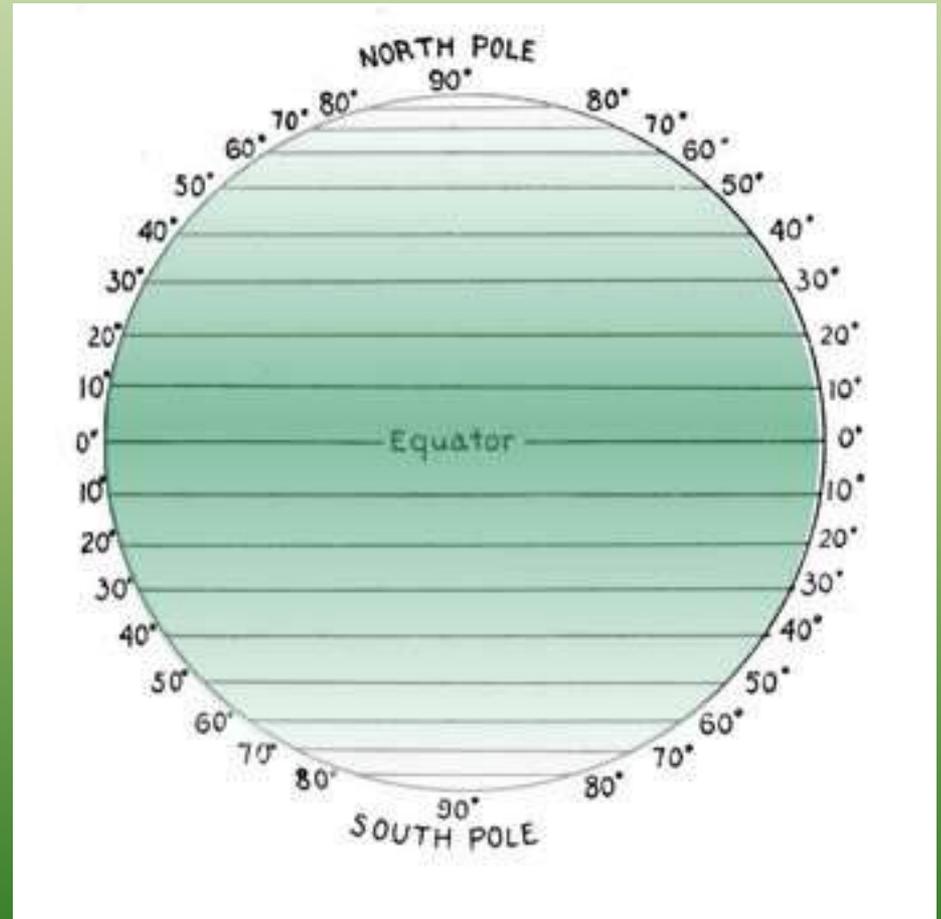


S

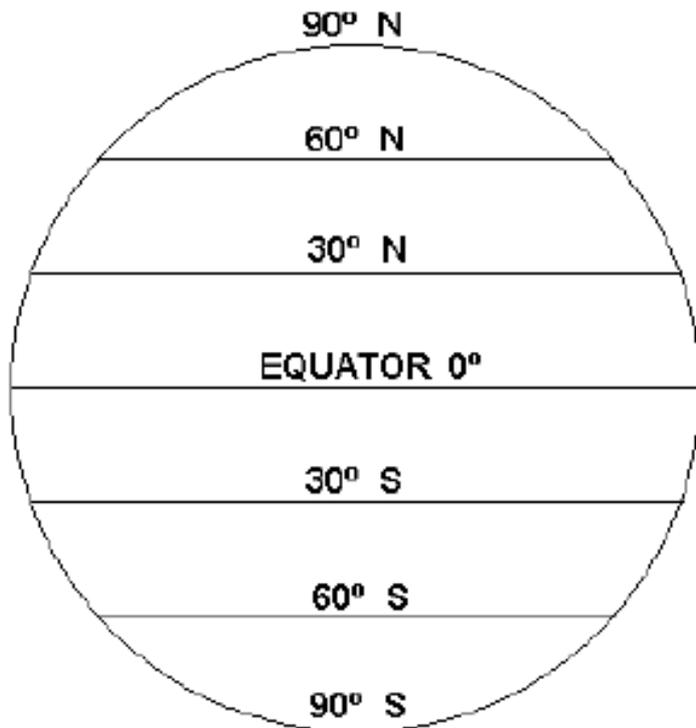
North America is in the Northern Hemisphere because it is north of the Equator. North America is in the Western Hemisphere because it is west of the Prime Meridian.

What is Latitude?

- Latitude is defined as a measurement of distance in degrees north and south of the equator
- The word latitude is derived from the Latin word, “latus”, meaning “wide.”



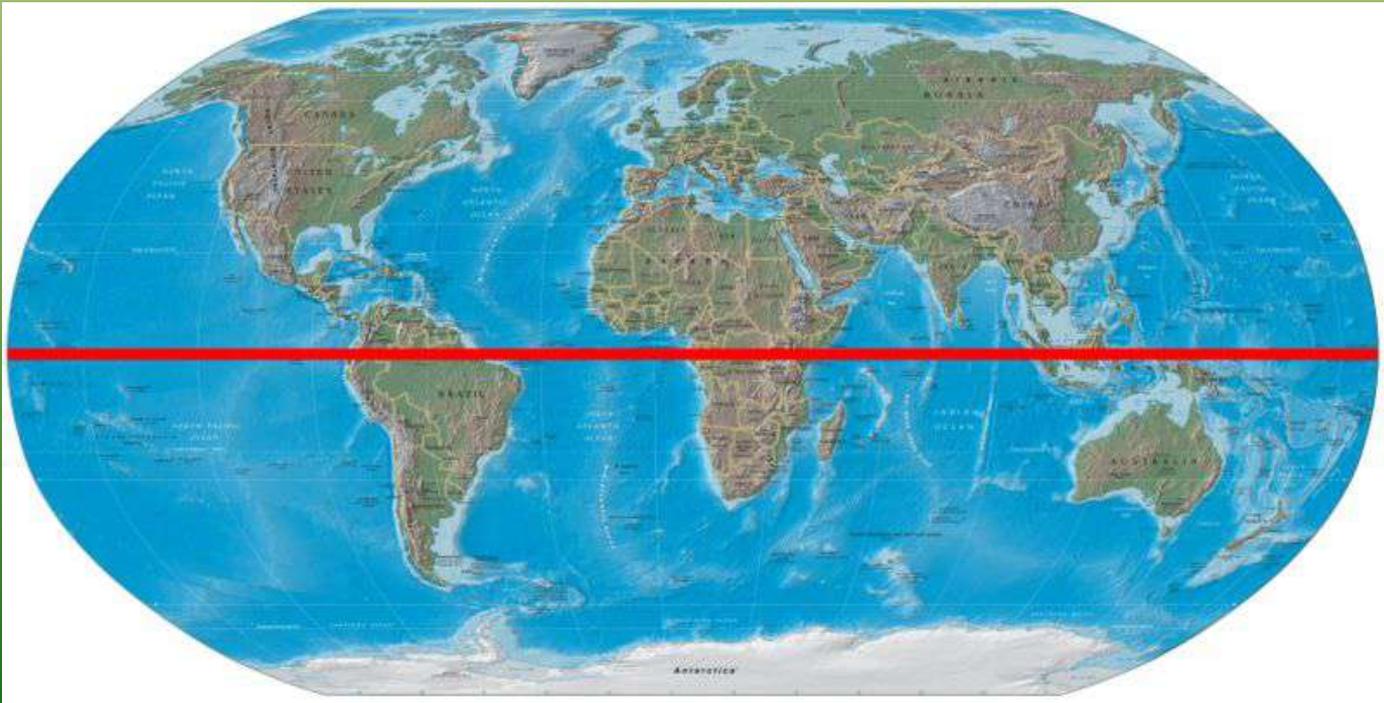
What is Latitude



- There are 90 degrees of latitude from the equator to each of the poles, north and south.
- Latitude lines are parallel, that is they are the same distance apart
- These lines are sometimes referred to as parallels.

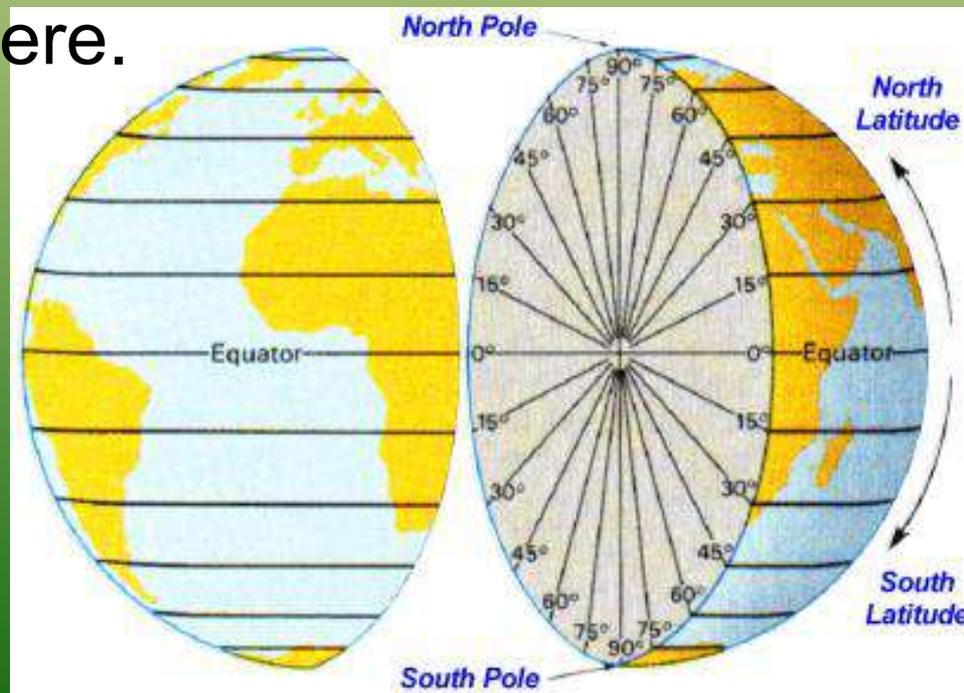
The Equator

- The equator is the longest of all lines of latitude
- It divides the earth in half and is measured as 0° (Zero degrees).



North and South Latitudes

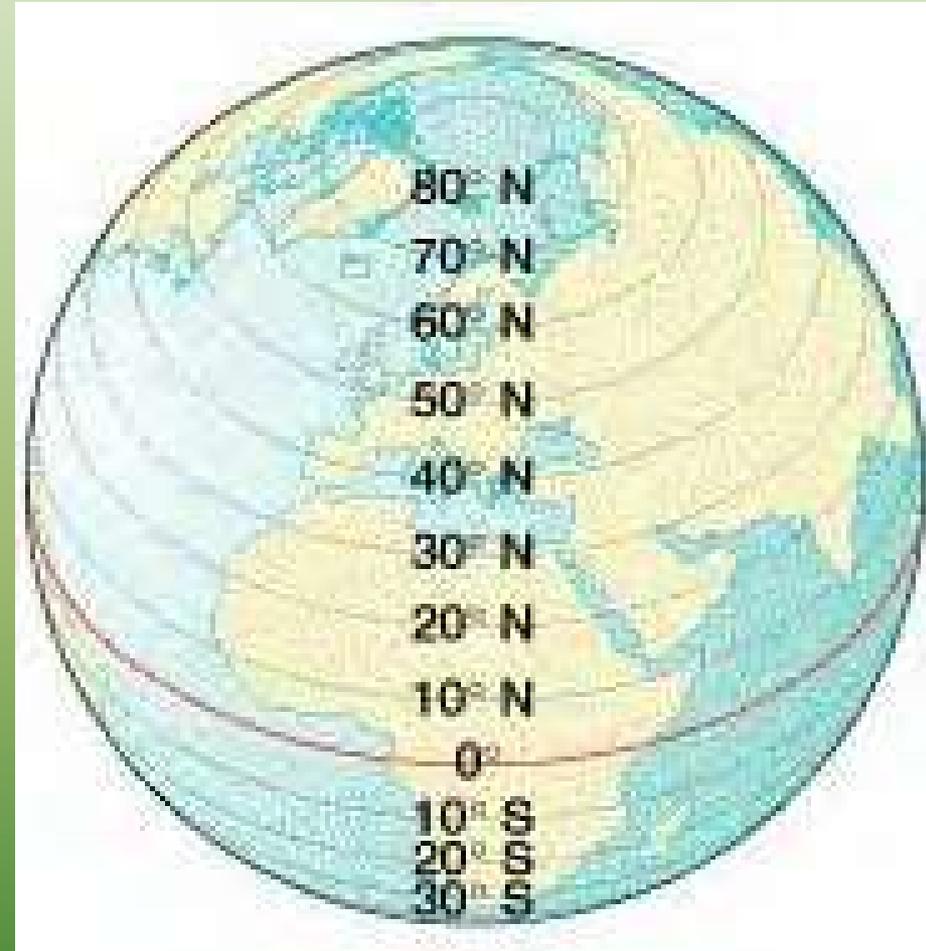
- Positions on latitude lines above the equator are called “north” and are in the northern hemisphere.
- Positions on latitude lines below the equator are called “south” and are in the southern hemisphere.



To find a latitude line such as 60 degrees north latitude, you must do three things:

1. Go to your starting line (the Equator).
2. Determine which direction you must go (north or south).
3. Determine the distance in degrees you must go (60).

This will give the location of one of your “streets”.



Let's take a quiz

Pull out your white boards



Lines of latitude are

Parallel _____ to the equator

Latitude lines give directions
North and

South of the

Equator.

There are 90 degrees
of latitude north and south of the
equator.

The equator is 0
degrees.

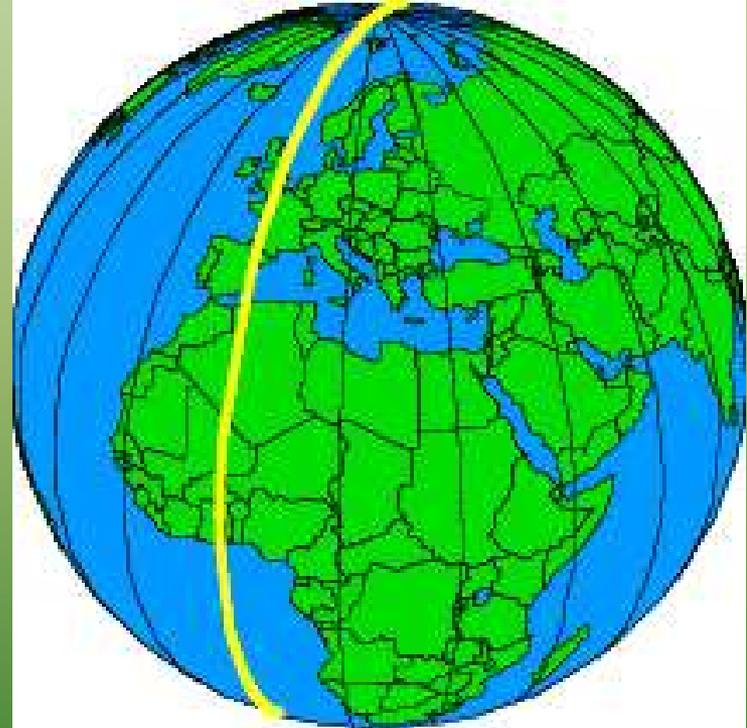
The equator divides the earth
into 2 equal parts.

Great Job!!!

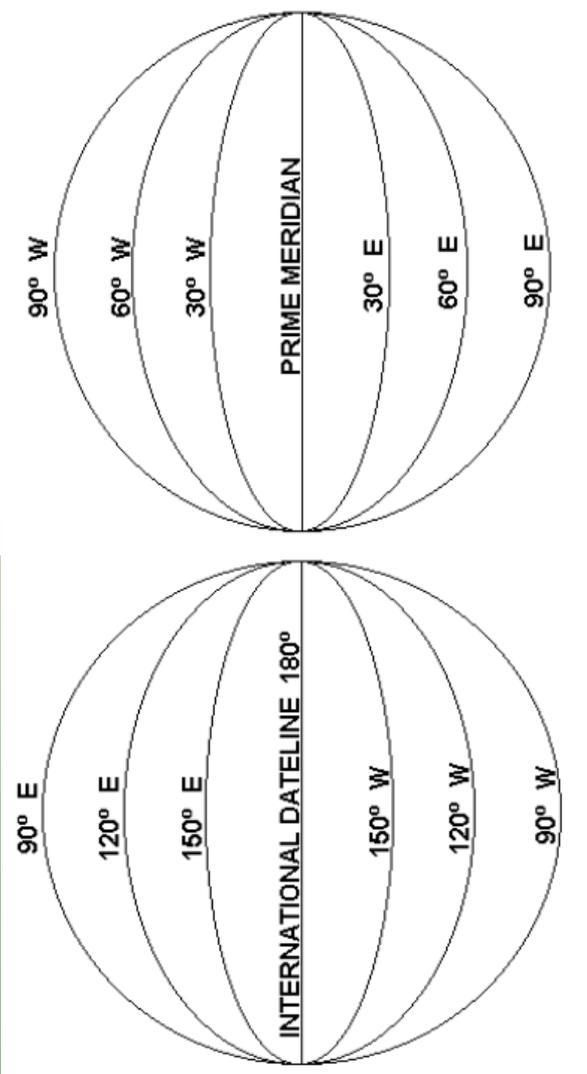
Lets Continue!

What is Longitude?

- Longitude is defined as measurement of distance in degrees east or west of the prime meridian.
- The word longitude is derived from the Latin word, “longus”, meaning “length.”



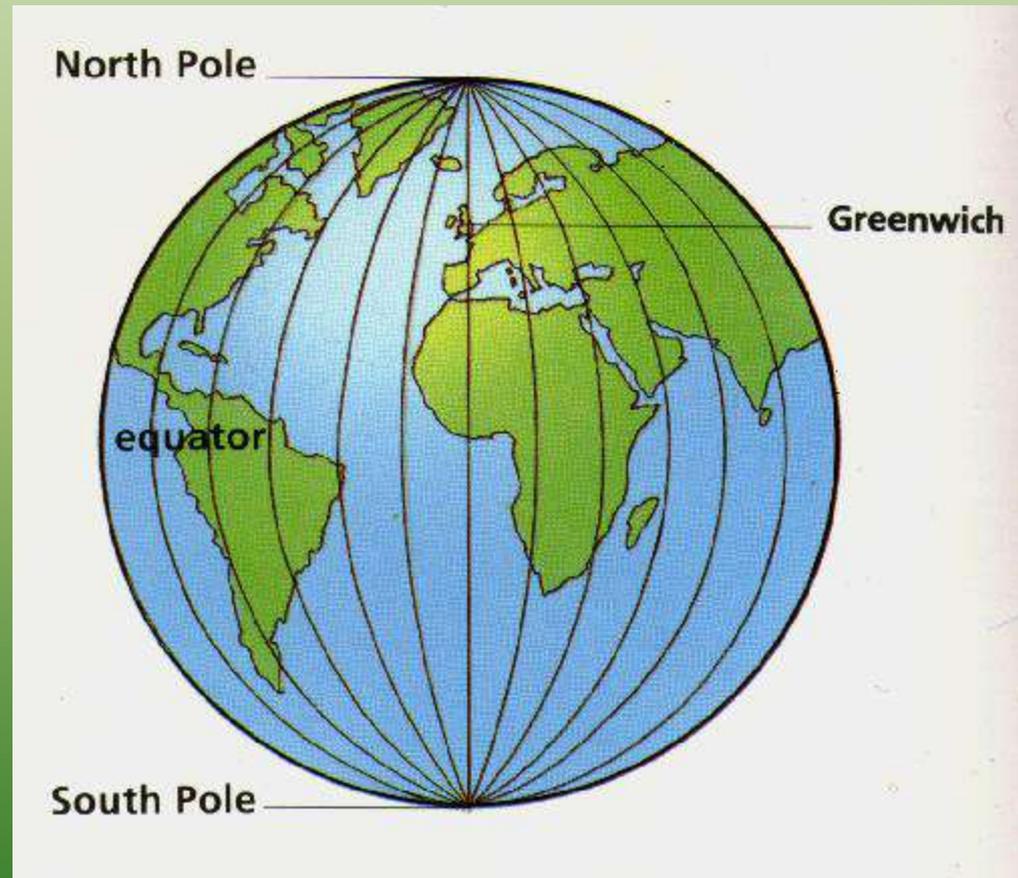
What is Longitude?



- The Prime Meridian, as do all other lines of longitude, pass through the north and south pole.
- They make the earth look like a peeled orange.

The Prime Meridian

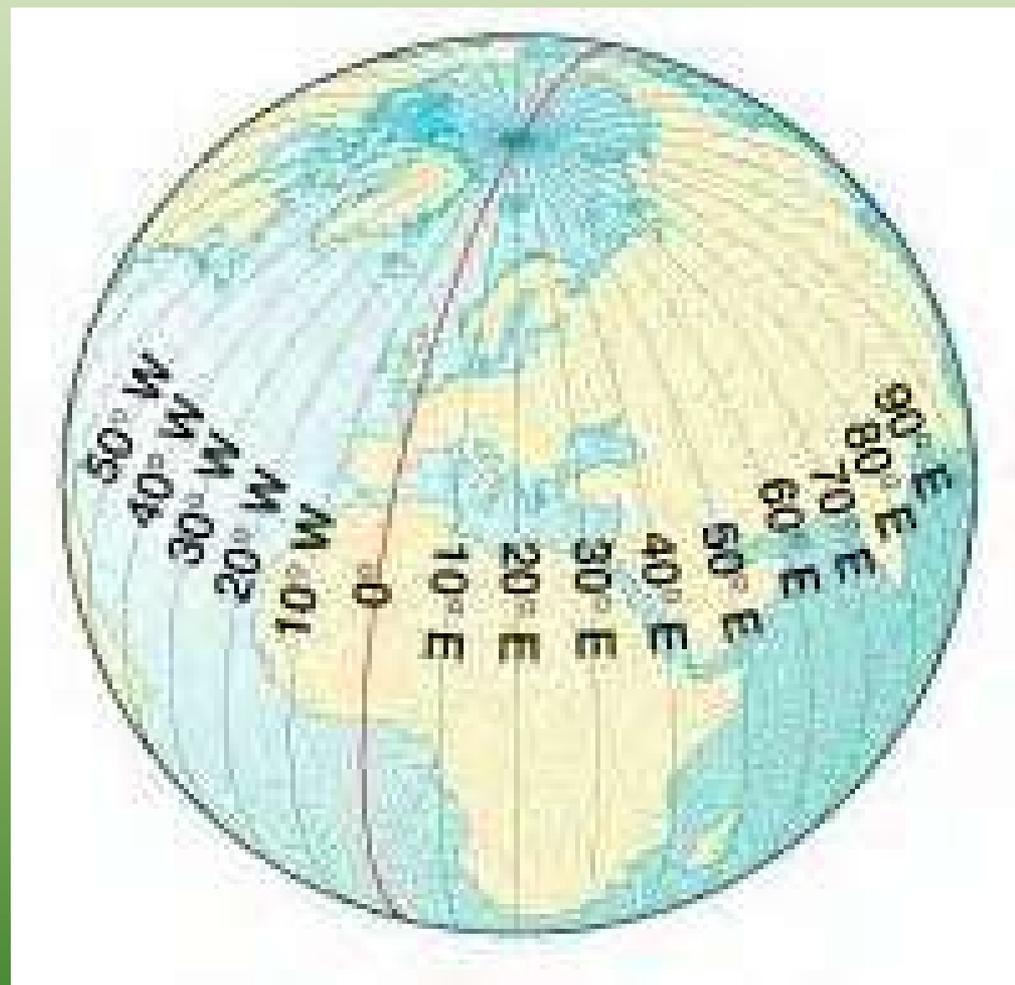
- The Prime meridian divides the earth in half too.
- It is also 0° . It passes through the community of Greenwich, England.



To find a longitude line such as 40 degrees east longitude, you must do three things:

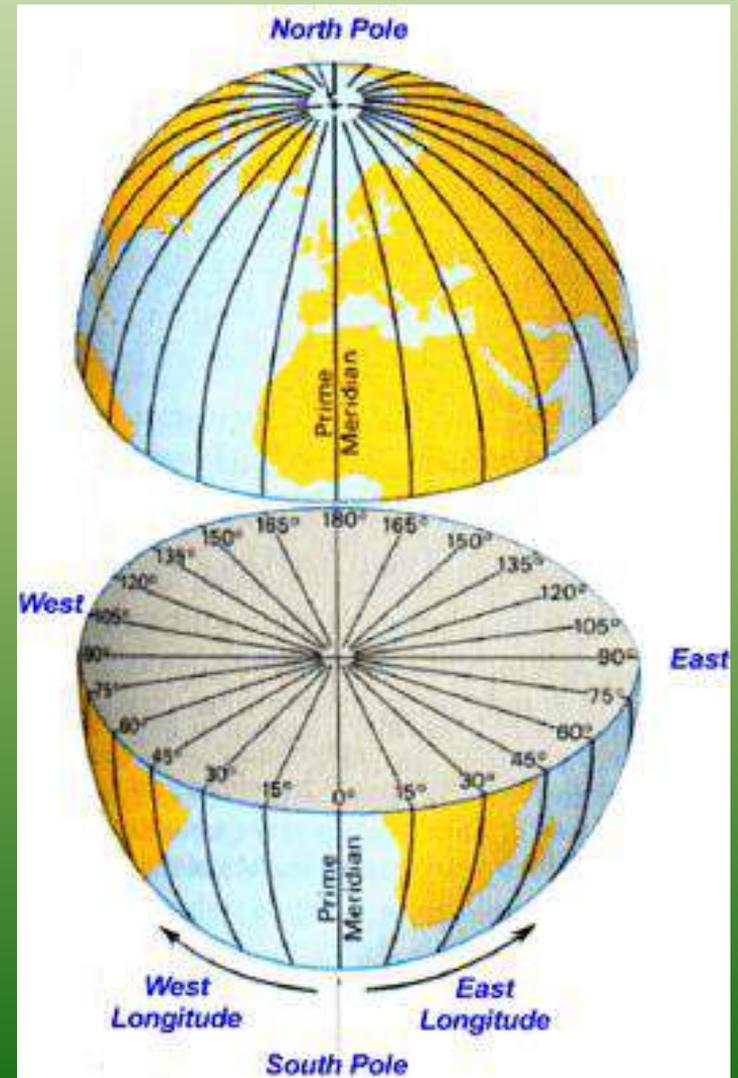
1. Go to your starting line (the Prime Meridian).
2. Determine which direction you must go (east or west).
3. Determine the distance in degrees you must go (40).

This will give the location of one of your second street



East and West Longitudes

- Longitude lines to the left of the prime meridian give locations west, in the western hemisphere.
- Longitude lines to the right of the prime meridian give locations east, in the eastern hemisphere.



Here's another quiz!

Pull out your whiteboards again!



Longitude lines connect the

North pole with the

South pole.

The line of 0° longitude is called
the Prime Meridian.

Longitude lines give directions

East

and

West

of the prime

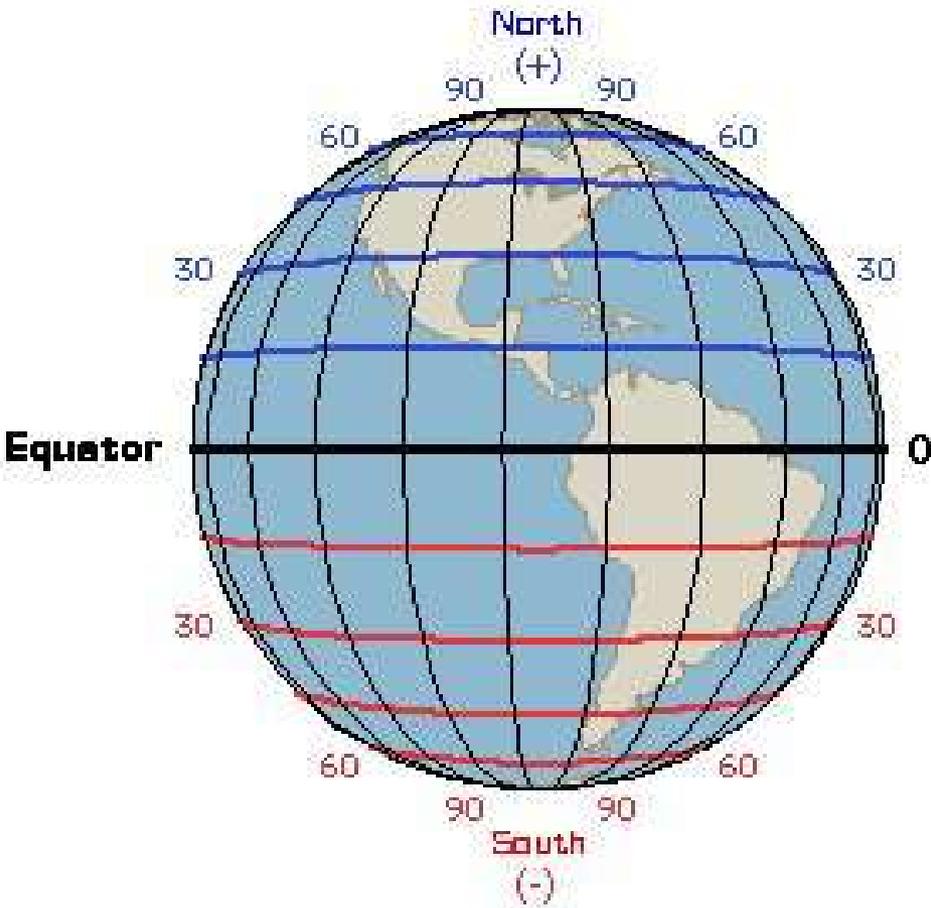
meridian.

There are $\frac{180}{1}$ degrees of longitude on each side of the prime meridian.

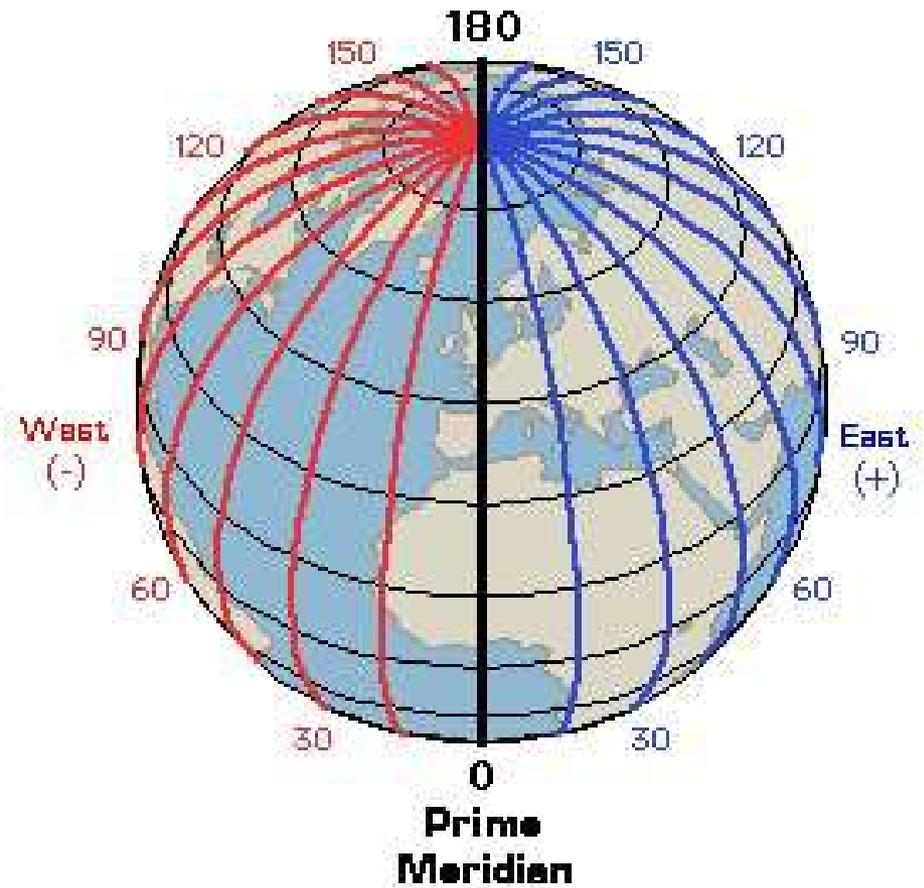
Great Job!

Let's Continue

Latitude



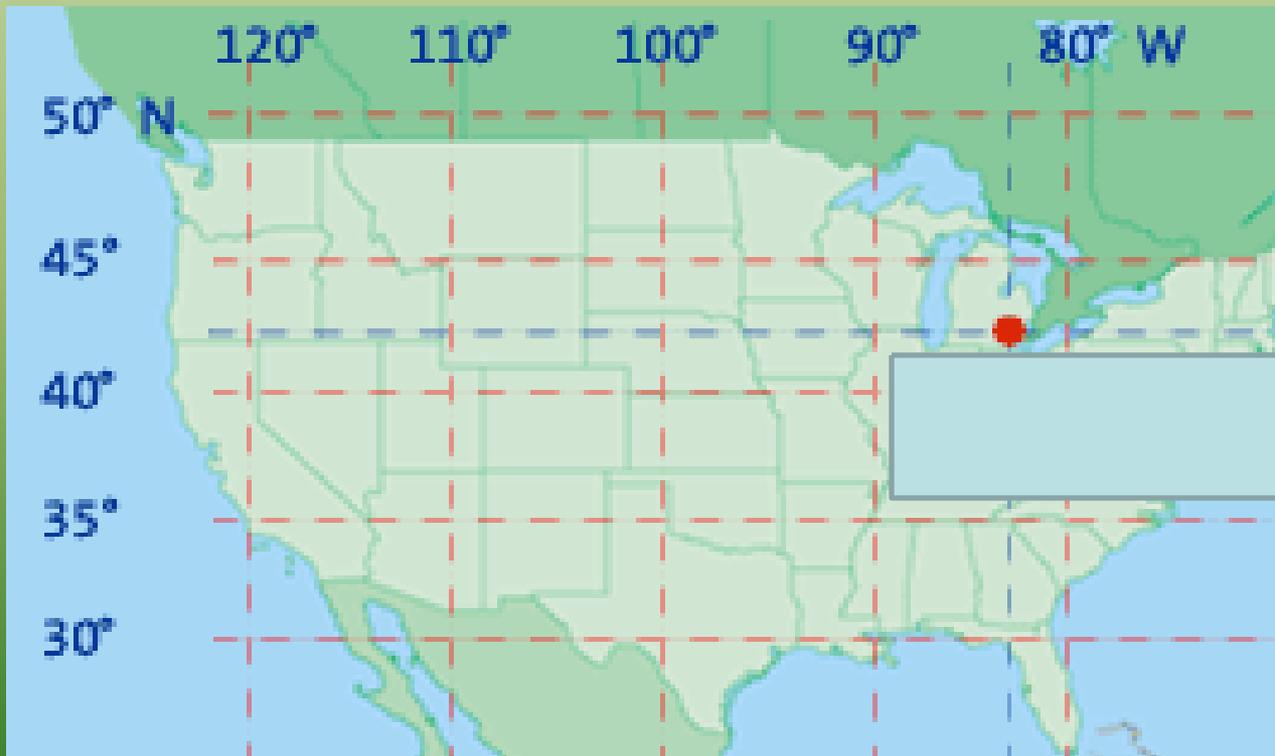
Longitude



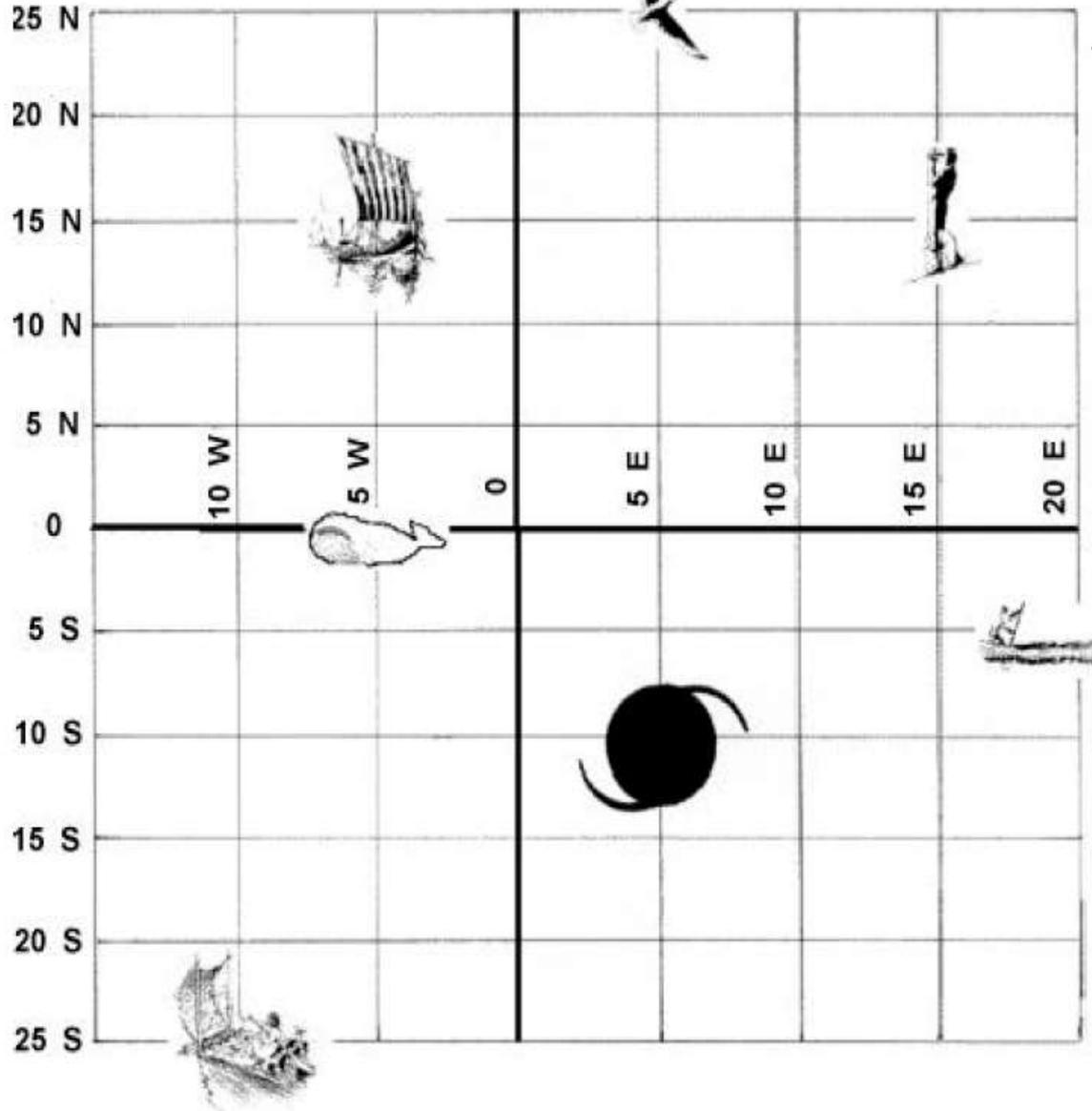
Using Latitude and Longitude

- To find your exact location on a map, you need to determine which latitude line and which longitude line meet where you are standing.
- When writing locations, the latitude is given first.
 - For example
 - Miami, Florida, has a location of 25° North and 80° West.
 - This is usually written in a short form as 25° N 80° W

A location's coordinates
(_____ ° N or S, _____ ° E or W)



Lets Practice



- Give the Latitude and Longitude of each of the following shapes.

- Viking Ship 15° N, 5° W
- Hurricane 10° S, 5° E
- Tourist 15° N, 15° E
- Rafter 25° S, 10° W
- Whale 0° S, 5° W
- Canoeists 5° S, 20° E
- Flying Bird 25° N, 5° E

Let's take a another quiz!

Do you know what Longitude and
Latitude Mean?



Name the City located at 30°
North and 90° West.

pg. A10

New Orleans

Name the state that is located
entirely between 40-45° North
and 90-100° West.

pg. A10

Iowa

The line at 0° Longitude is
called what?

The Prime Meridian

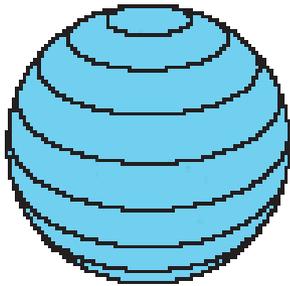
Longitude and Latitude are
measured in what?

Degrees

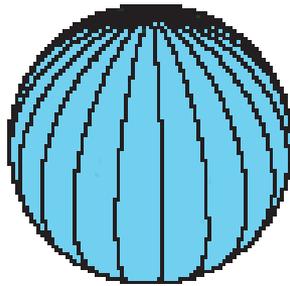
What is the degrees latitude of
the equator?

0°

Which Picture shows lines of Longitude?



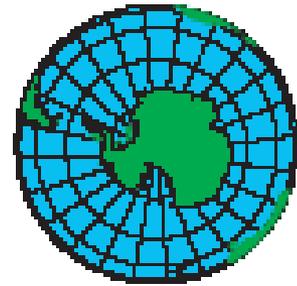
A



B

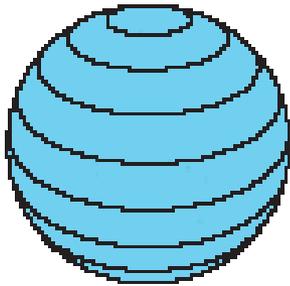


C

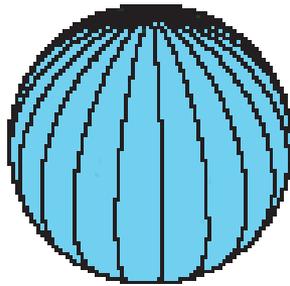


D

Which picture shows the
Western Hemisphere?



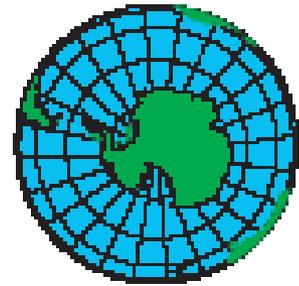
A



B

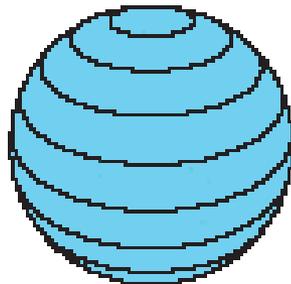


C

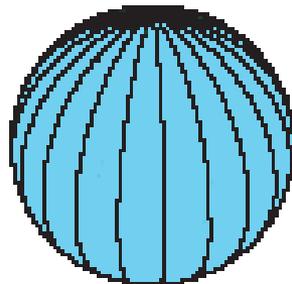


D

Which picture shows the Southern Hemisphere?



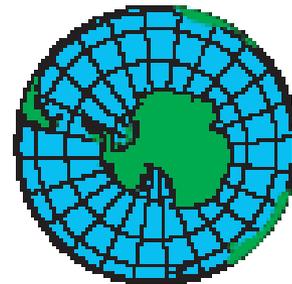
A



B

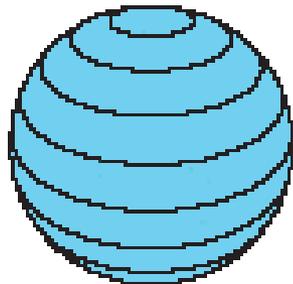


C

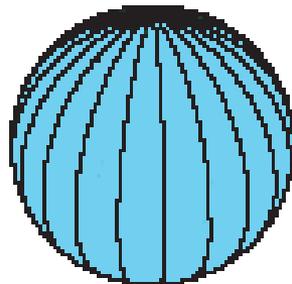


D

The measure that shows how far North or South a place is from the equator is shown in which picture?



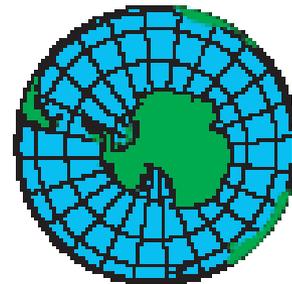
A



B



C



D

Great Job!!!!

BRAIN POP TIME:) 😊

The International Date Line



The International Date Line

- There are 180 lines of longitude on each side of the prime meridian.
- But on the opposite side, the primer meridian is not zero degrees but 180° .
- It is called the International Date Line.

