Name $\qquad$

## Latitude and Longitude

The lines of latitude and longitude are the imaginary lines which are universally accepted as coordinates for locating places on the earth. They are commonly used by people navigating the oceans. The parallels of latitude are the east-west lines which circle the earth, while the meridians of longitude are the north-south lines which circle the earth. Each line is labeled as a degree, and each degree of latitude is separated from the next by approximately 111 kilometers. At the equator, degrees of longitude are also approximately 111 kilometers apart. As they converge at the poles, the longitudinal lines become closer together. Latitudinal lines range from $0^{\circ}$ to $90^{\circ}$ north and south, while longitudinal lines range from $0^{\circ}$ to $180^{\circ}$ east and west.


If your map does not have a distance scale, you can use this information to calculate approximate distances. First, locate the latitude or longitude lines which cross a location and then multiply the degrees by 111 kilometers. (Be careful to accommodate your numbers when you cross from north to south at the Equator and from east to west at the Prime Meridian.)

Using the information above and the map on the next page, answer the mathematical problems below.

1. Approximately how many kilometers is it from the Equator to Houston, Texas? $\qquad$
2. Approximately how many kilometers long is South America? $\qquad$
3. Approximately how many kilometers is it from Venice, Italy, to Cape Town, South Africa?
4. Approximately how far is it from the coast of Africa to the coast of South America at the Equator? $\qquad$
5. Approximately how far is it around the earth at the Equator? $\qquad$
6. Find two countries on the map which are approximately 4,995 kilometers apart.
7. Make up five of your own problems using map coordinates and swap with a friend.

## Latitude and Longitude ${ }_{\text {coms }}$



