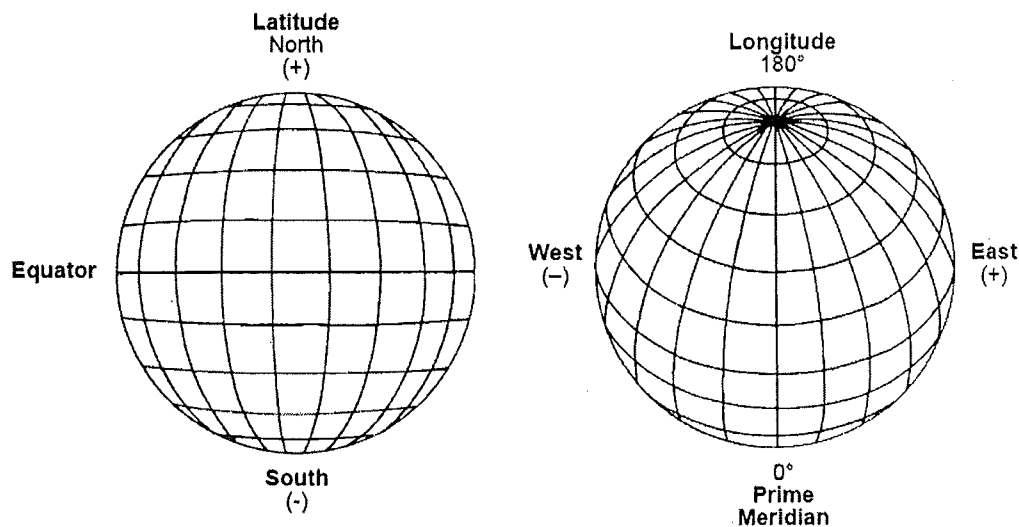


Name _____

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° to 90° north and south, while longitudinal lines range from 0° to 180° east and west.



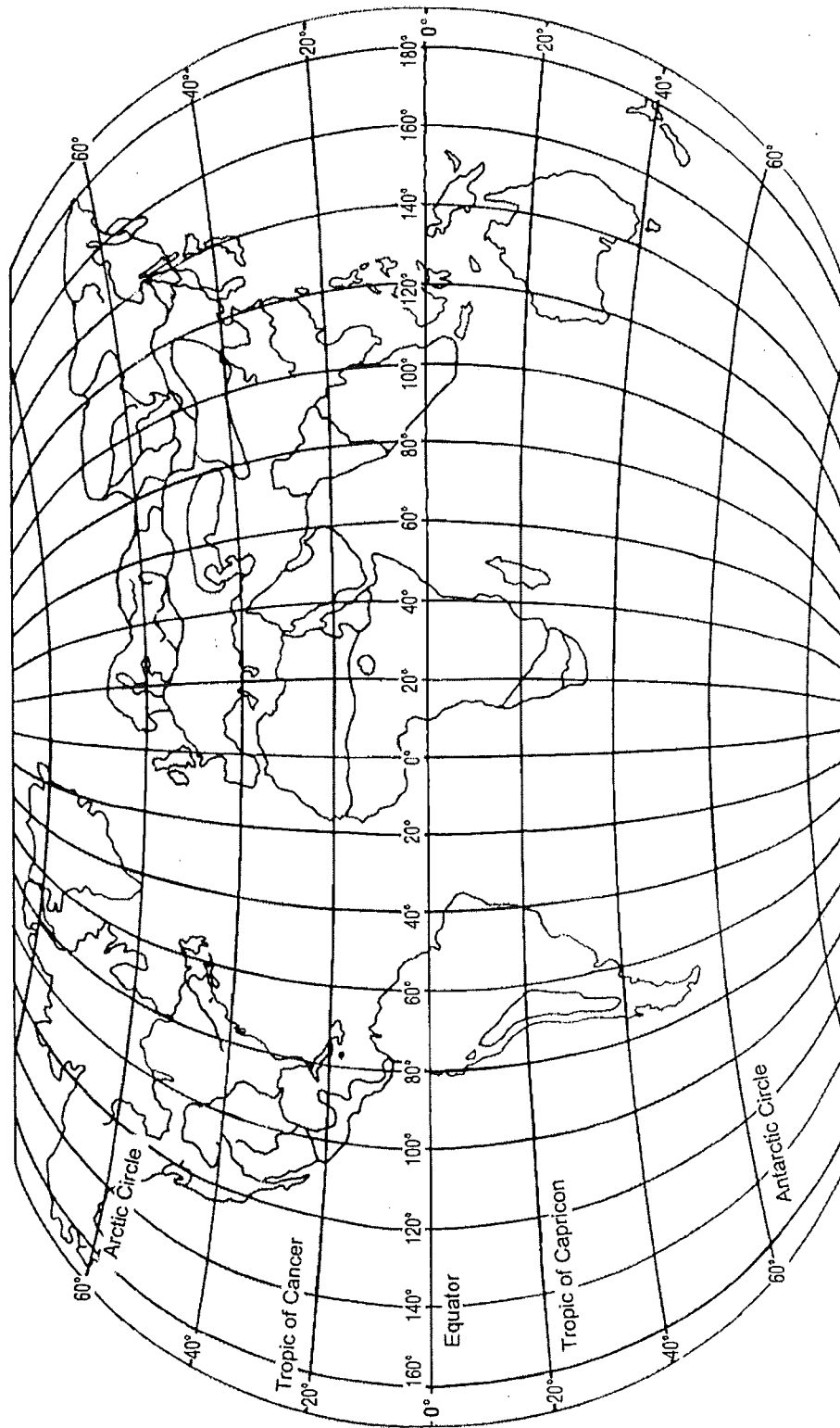
If your map does not have a distance scale, you can use this information to calculate approximate distances. First, locate the latitude or longitude lines which cross a location and then multiply the degrees by 111 kilometers. (Be careful to accommodate your numbers when you cross from north to south 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? _____
2. Approximately how many kilometers long is South America? _____
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? _____
5. Approximately how far is it around the earth at the Equator? _____
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 (cont.)



Social Studies 9 Maps and Mapping Exercise

Name _____ Date _____

A. The Earth Grid 14 marks

1. Name the following special lines of latitude and longitude. (4)

a. 0° (latitude) _____

b. 0° (longitude) _____

c. 23.5° North _____

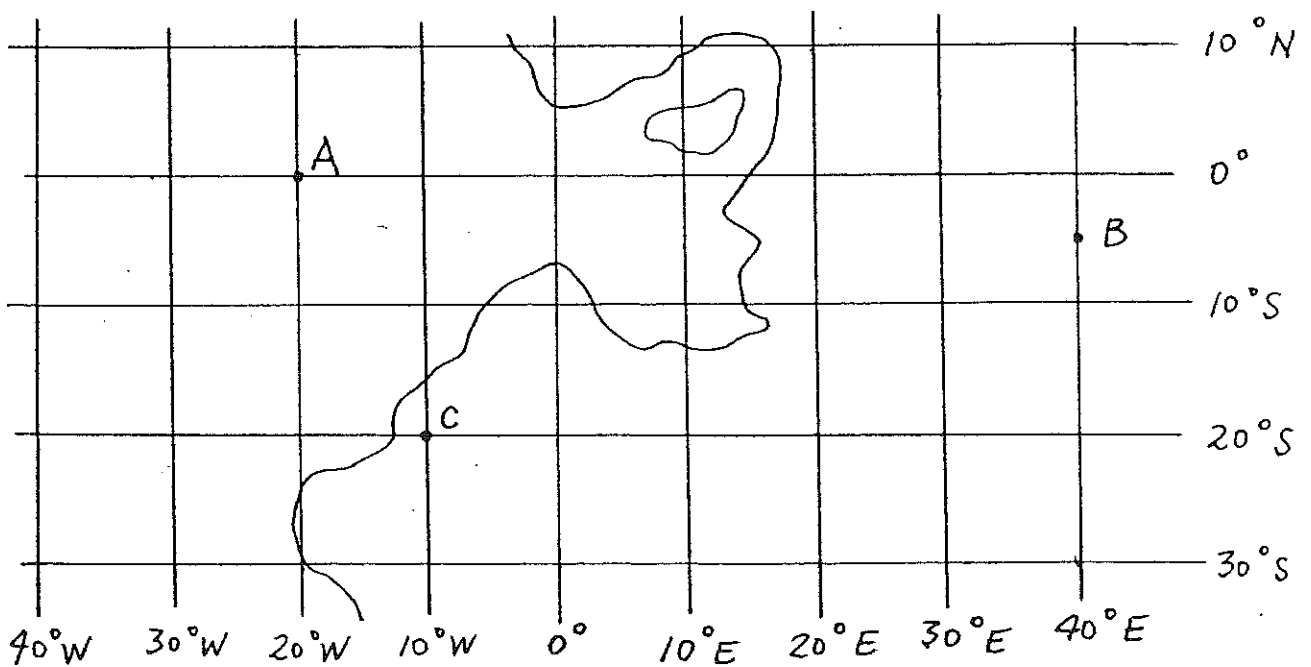
d. 66.5° South _____

2. Give the Earth grid coordinates for A, B, and C below. (3)

A _____

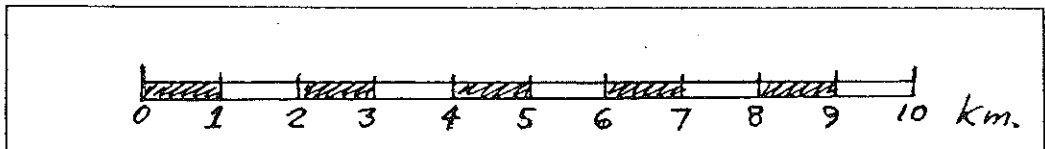
B _____

C _____



3. Using your atlas, find the Earth grid coordinates for the following places: (4)
- a. New York City _____
 - b. San Francisco _____
 - c. Sydney, Australia _____
 - d. Johannesburg, South Africa _____
4. Using your atlas – the world map on the inside of the front cover - what do you find at each of the following Earth grid coordinates? (3)
- a. $0^{\circ} 0^{\circ}$ _____
 - b. $40^{\circ}\text{S } 165^{\circ}\text{E}$ _____
 - c. $8^{\circ}\text{S } 80^{\circ}\text{E}$ _____

B. Scale 5 marks



Use the scale above to answer the following questions. (2)

- 1. Express the above linear scale as a statement of scale.

- 2. What is the representative fraction for this scale?

3. Using your atlas, pages 102-103, measure the distances below. (3)

a. Sydney to Brisbane _____

b. Perth to Jakarta _____

c. Auckland to Sydney _____

C. Types of Maps 3 marks

1. On page 127 of your atlas, what does the cartogram show?

2. On page 36 of your atlas, what do the dots represent?

3. On page 18 of your atlas, there are two isoline maps. What are they showing?

TOTAL: _____
22