

Physical Geography

Lab 1: Location

Name _____

There are several things wrong with the coordinates below. Rewrite the coordinates correctly (including degrees, minutes, and seconds) in the space provided.

1) 57° 86' 24" S, 149° 02' 63 W _____

2) 05° 00' 82" W, 93° 59' 77" E _____

Use a world map or an atlas to answer questions 3-8

3) New York City, USA, lies on the 74°W meridian (longitude line). What national (not state!) capital can be found on the 74°W line?

4-6 Cape Town, South Africa, is located on the 34°S parallel (latitude line). Find three other major cities also located on 34°S (Hint: look at other continents beside Africa).

4)

5)

6)

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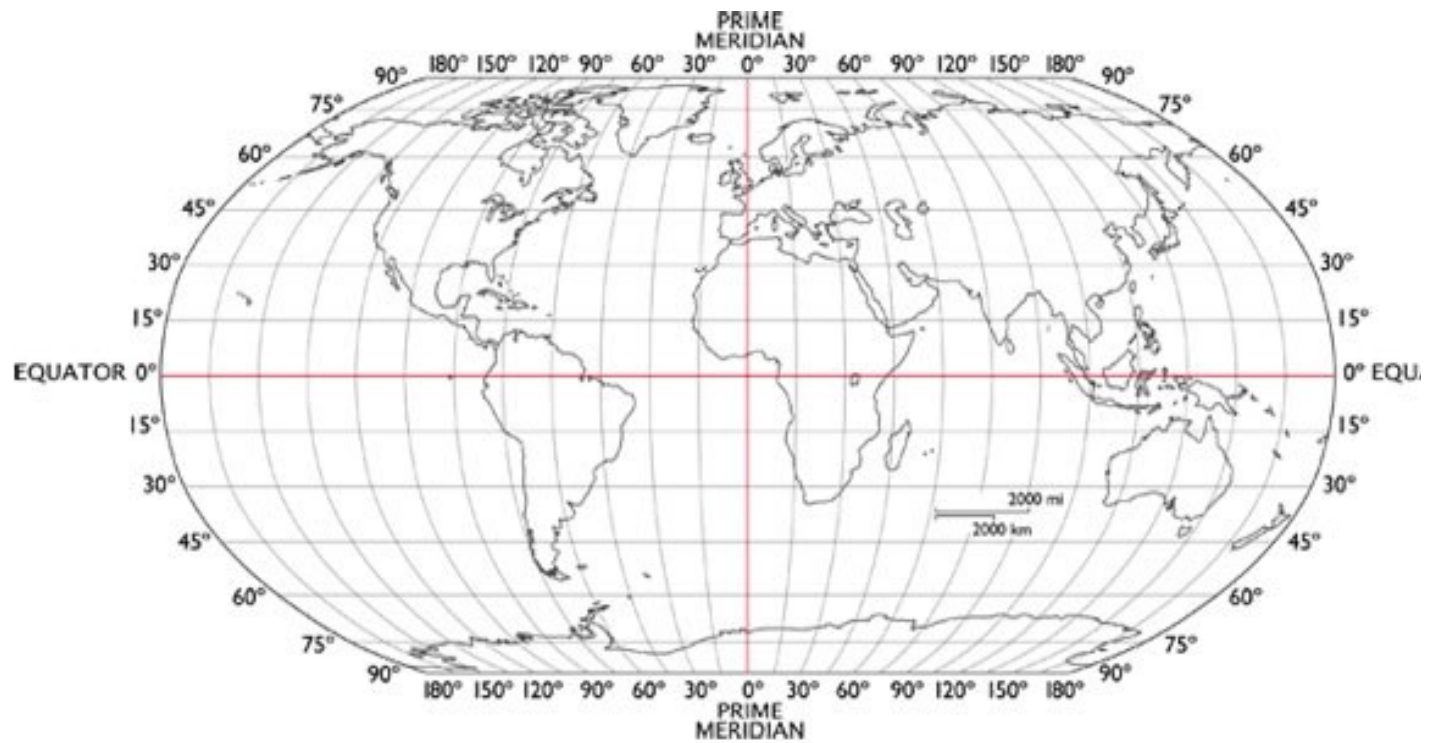
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7) Fill out the following table with the appropriate information, using your atlas (no cheating!!). The first one (A) has been completed for you as an example. You must include degrees and minutes (you do not need to include seconds).

City	Latitude and Longitude
A. Los Altos Hills, CA	37°23' N, 122° 07' W
B. Your home town: (write in)	
C. Beijing, China	
D. Lima, Peru	
E.	22° 34' N, 88° 22' E
F.	32° 57' S, 115° 52' E

8) Plot the above cities on the map below. Just use the corresponding letter to label them (A - F)



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9-11 In this next section you are given starting coordinates, then you are going to travel several coordinates away to end up in a new location. You must determine what that location is (coordinates only – you don't have to actually find a city) based on the information provided. Remember to use absolute values for distance between points (no negatives).

9) You are at 60°N, 130°W. You travel 35° south and 120° east. What is your new location in latitude, longitude?

10) You are at 5°S, 5°W. You travel 10° north and 35° east. What is your new location in latitude, longitude?

11) You are at 30°N, 170°E. You travel 55° south and 30° east. What is your new location in latitude, longitude?

12-13 How many miles are between each line of latitude?? If you flew from 37° N (Los Altos) to San Luis Obispo (about 35° N), how many linear miles would you travel?? Luckily, there is an easy way to figure it out. There is always 69 miles (111km) between each degree of latitude that is because the lines are parallel.

So how many degrees are there between Los Altos, CA and San Luis Obispo, CA?

Now multiple that by 69 and you get _____ miles. That is the latitudinal distance in miles ☺

Try some more - find the latitudinal distance between the locations below. Show your work!

12) London, UK and the Equator

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13) Tokyo, Japan and Santiago, Chile (ignore the longitude)

14) Now, doing the same thing (as #12-13) between lines of longitude is not going to be as easy... Is the distance between 2 degrees of longitude near the North Pole the same as the distance between 2 degrees of longitude at the equator?

Yes or No _____

Why? (Think about the characteristics of longitude lines versus latitude lines)