Name _____ Section _____

EXERCISE 2 PROBLEMS/SOLUTIONS—PART I

1. Using a globe, determine the latitude and longitude (to the nearest degree) of the following cities. Be sure to indicate if the location is north or south latitude, and east or west longitude.

	City	Latitude	Longitude
(a)	Chicago, Illinois	42° N	88° W
(b)	Tokyo, Japan	35° N	140° E
(c)	Sydney, Australia	35° S	151° E
(d)	Singapore	1° N	104° E
(e)	Buenos Aires, Argentina	35° S	58° W

2. Using a globe, determine which major city is located at the following coordinates:

	Latitude	Longitude	City
(a)	14° N	100° E	Bangkok
(b)	56° N	38° E	Moscow
(c)	19° N	99° W	Mexico City
(d)	1° S	37° E	Nairobi
(e)	37° S	175° E	Auckland

3. (a) What is the latitude and longitude of your school (estimate to the nearest minute of latitude and longitude; be sure to indicate if the location is north or south latitude, and east or west longitude)?

   (b) What resource did you use to determine this?

Name _____ Section _____

EXERCISE 2 PROBLEMS/SOLUTIONS—PART II

1. On the diagram at right, plot the following coordinates with a dot. Then label each dot with its corresponding letter.

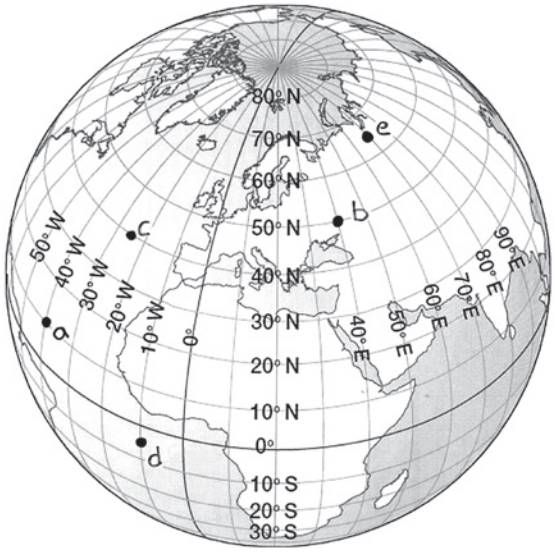
   (a) 10° N, 40° W

   (b) 50° N, 40° E

   (c) 40° N, 25° W

   (d) 5° S, 10° W

   (e) 65° N, 70° E



2. Use the index of an atlas to find the following places. Determine the latitude and longitude to the nearest degree.

	Place	Latitude	Longitude
(a)	Pusan (Busan)	**35° N**	**129° E**
(b)	Reykjavik (Reikjavik)	**64° N**	**22° W**
(c)	Walvis Bay	**23° S**	**14° E**
(d)	Tuvalu (Ellice Islands)	**8° S**	**177° E**

3. If you start at the equator and travel to 10° N, approximately how many kilometers (or miles) north of the equator will you be? Take the circumference of Earth to be 40,000 kilometers (24,900 miles). Show your calculations.

   40,000/360 = 111.1 km/degree = 1111 km (approx. 1100 km)

   24,900/360 = 69.2 mi./degree = 692 mi. (approx. 690 mi.)

4. If you travel west through 10° of longitude along the equator, the distance traveled will be very different from the distance traveled through 10° of longitude at 60° N. Why?

   Meridians converge at the poles and so are closer together at 60° N than at 0°.