$\qquad$ Period

## Latitude and Longitude

Latitude and Longitude are the lines that create the coordinate system on the surface of Earth. This system gives each spot on the surface of earth a unique location, a set of numbers (latitude, longitude). Latitude lines measure North and South of the Equator, while Longitude lines measure East and West of the Prime Meridian.

In this lab, you will be both plotting locations of cities when coordinates are given to you, and reading coordinates of cities off of the maps.

## Part 1: The World

Using Map 1 (The World), plot the location (latitude and longitude) of each of the 10 cities below. Label each point on your map with the number that precedes it.

|  | City | Location |
| :---: | :---: | :---: |
| 0 | Tananarive, Madagascar | $\left(19^{\circ} \mathrm{S}, 48^{\circ} \mathrm{E}\right)$ |
| 1 | Adelaide, Australia | $\left(35^{\circ} \mathrm{S}, 139^{\circ} \mathrm{E}\right)$ |
| 2 | Astana, Kazakhstan | $\left(51^{\circ} \mathrm{N}, 71^{\circ} \mathrm{E}\right)$ |
| 3 | Beijing, China | $\left(40^{\circ} \mathrm{N}, 116^{\circ} \mathrm{E}\right)$ |
| 4 | Cairo, Egypt | $\left(30^{\circ} \mathrm{N}, 31^{\circ} \mathrm{E}\right)$ |
| 5 | Ghardal̈a, Algeria | $\left(33^{\circ} \mathrm{N}, 4^{\circ} \mathrm{E}\right)$ |
| 6 | Krasnoyarsk, Russia | $\left(56^{\circ} \mathrm{N}, 93^{\circ} \mathrm{E}\right)$ |
| 7 | Mecca, Saudi Arabia | $\left(21^{\circ} \mathrm{N}, 40^{\circ} \mathrm{E}\right)$ |
| 8 | Mexico City, Mexico | $\left(19^{\circ} \mathrm{N}, 99^{\circ} \mathrm{W}\right)$ |
| 9 | Paris, France | $\left(49^{\circ} \mathrm{N}, 2^{\circ} \mathrm{E}\right)$ |
| 10 | Vostok, Antarctica | $\left(78^{\circ} \mathrm{S}, 107^{\circ} \mathrm{E}\right)$ |

## Part 2: The United States

Using Map 2 (The United States) determine the location (latitude, longitude) of the cities listed below. The first one has been done for you.

| Location | Latitude | Longitude |
| :---: | :---: | :---: |
| Los Angeles, California | $34^{\circ} \mathrm{N}$ | $\mathbf{1 1 8}^{\circ} \mathrm{W}$ |
| Detroit, Michigan |  |  |
| Memphis, Tennessee |  |  |
| Pierre, South Dakota |  |  |
| Salt Lake City, Utah |  |  |
| Seattle, Washington |  |  |

Using Map 2 (The United States)

1. Plot the location (latitude and longitude) of each of the 15 cities below. Label each point on your map with the number that precedes it.
2. Once you have plotted the location, in the "State" column of the table below fill in the state that the city is located in.
${ }^{* * *}$ Athens, Georgia will be plotted as a class and filled as an example.***

|  | City | Location | State |
| :---: | :---: | :---: | :---: |
| 0 | Athens | $\left(34^{\circ} \mathrm{N}, 83^{\circ} \mathrm{W}\right)$ | Georgia |
| 1 | Aurora | $\left(42^{\circ} \mathrm{N}, 88^{\circ} \mathrm{W}\right)$ |  |
| 2 | Baton Rouge | $\left(31^{\circ} \mathrm{N}, 91^{\circ} \mathrm{W}\right)$ |  |
| 3 | Bismarck | $\left(47^{\circ} \mathrm{N}, 101^{\circ} \mathrm{W}\right)$ |  |
| 4 | Boise | $\left(44^{\circ} \mathrm{N}, 116^{\circ} \mathrm{W}\right)$ |  |
| 5 | Caribou | $\left(47^{\circ} \mathrm{N}, 68^{\circ} \mathrm{W}\right)$ |  |
| 6 | Denver | $\left(39^{\circ} \mathrm{N}, 105^{\circ} \mathrm{W}\right)$ |  |
| 7 | Durham | $\left(35^{\circ} \mathrm{N}, 78^{\circ} \mathrm{W}\right)$ |  |
| 8 | Garden City | $\left(38^{\circ} \mathrm{N}, 101^{\circ} \mathrm{W}\right)$ |  |
| 9 | Hastings | $\left(41^{\circ} \mathrm{N}, 98^{\circ} \mathrm{W}\right)$ |  |
| 10 | Richmond | $\left(38^{\circ} \mathrm{N}, 77^{\circ} \mathrm{W}\right)$ |  |
| 11 | Seminole | $\left(35^{\circ} \mathrm{N}, 97^{\circ} \mathrm{W}\right)$ |  |
| 12 | Shelbyville | $\left(40^{\circ} \mathrm{N}, 86^{\circ} \mathrm{W}\right)$ |  |
| 13 | Talladega | $\left(33^{\circ} \mathrm{N}, 86^{\circ} \mathrm{W}\right)$ |  |
| 14 | Four Corners | $\left(37^{\circ} \mathrm{N}, 109^{\circ} \mathrm{W}\right)$ |  |
| 15 | Wilkes-Barre | $\left(41^{\circ} \mathrm{N}, 76^{\circ} \mathrm{W}\right)$ |  |



## Map 2: The United States (Place points on the map)



