Math 100 Geocaching Assignment

Group members:

Complete the assignment with your group members. Submit one assignment per group. Graphs must be drawn with pencil using rulers and graph paper. Due date: Monday, November 2 at the beginning of class. Early submissions are welcome.

The primary unit in which longitude and latitude are given is *degrees* (°). There are 360° of longitude (180° E ↔ 180° W) and 180° of latitude (90° N ↔ 90° S). Each degree can be broken into 60 *minutes* (’). Each minute can be divided into 60 *seconds* (”). For finer accuracy, fractions of seconds given by a decimal point are used.
Source: http://astro.unl.edu/naap/motion1/tc_units.html

More info: https://en.wikipedia.org/wiki/Geographic_coordinate_system

Please complete the following table showing the coordinates of each cache:

	N (north)	W (west)
Cache #1	42° 01.300’	87° 44.731’
Cache #2		
Cache #3		
Cache #4		
Cache #5		
Cache #6		

Draw a graph where the x - axis is located at 0° N-S and the y - axis is located at 0° W-E.

Label the north pole at 90° N; the south pole at 90° S, and provide a reasonable scale for your y - axis.

The antipodal meridian of Greenwich is both 180°W and 180°E. Label the ends of your x - axis accordingly and provide a reasonable scale for your x - axis.

Plot 42°N and 87°W on your graph in the correct location based on your scale.

Draw a second graph as follows:

-minimum y-value on the y - axis is 42° 1’ N
-maximum y-value on the y - axis is 42° 2’ N
-minimum x-value on the x - axis is 87° 44’ W
-maximum y-value on the y - axis is 87° 45’ W

Note that 87° 45’ W should appear to the left of 87° 44’ W.

Label the x - and y - axes with a reasonable scale.

Plot the location of the 6 caches on your graph.