**Average Monthly Temperatures in Degrees Fahrenheit**

*Source: Western Regional Climate Center <http://www.wrcc.dri.edu/>, 03/08/08*

**Name:**

| **City** | **A** | | | **B** | | | **C** | | | **D** | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **ºF** | **ºF-Mean** | **Square** | **ºF** | **ºF-Mean** | **Square** | **ºF** | **ºF-Mean** | **Square** | **ºF** | **ºF-Mean** | **Square** |
| Jan | 56.7 | | | 49.4 | | | 50.9 | | | 44.8 | | |
| Feb | 56.9 | | | 53.5 | | | 52.7 | | | 49.4 | | |
| Mar | 57.1 | | | 58.7 | | | 53.3 | | | 53.3 | | |
| Apr | 58.6 | | | 65.7 | | | 54.0 | | | 58.7 | | |
| May | 60.3 | | | 74.2 | | | 55.3 | | | 65.8 | | |
| Jun | 63.1 | | | 82.9 | | | 57.0 | | | 73.0 | | |
| Jul | 66.0 | | | 88.7 | | | 58.3 | | | 78.4 | | |
| Aug | 66.9 | | | 86.9 | | | 59.4 | | | 76.4 | | |
| Sep | 66.6 | | | 80.5 | | | 60.1 | | | 71.9 | | |
| Oct | 64.3 | | | 69.3 | | | 59.0 | | | 62.8 | | |
| Nov | 60.8 | | | 56.8 | | | 55.2 | | | 52.5 | | |
| Dec | 57.4 | | | 49.4 | | | 51.1 | | | 45.4 | | |
| Means | | | | | | | | | | | | |
| Sum of Squares | | | | | | | | | | | | |
| Sum of Squares/11 | | | | | | | | | | | | |
| √of Sum of Sq/11 (St Dev) | | | | | | | | | | | | |
| Hottest month | | | | | | | | | | | | |
| How many months after the summer solstice does the warmest month occur? | | | | | | | | | | | | |

| | A | B | C | D |
|---|---|---|---|---|
| Mark the two coastal stations | | | | |
| Mark the two inland stations | | | | |

What made you decide? Some lines of evidence include variability of temperatures (standard deviation is a measure of variability) and the time it takes for temperatures to reach their hottest levels after the summer solstice in June. Explain your reasoning.

Label each pair (AB and CD) as the northern pair (N) or the southern pair (S)

AB CD

What made you decide?

Now, you know which pair (AB or CD) has to be San Francisco/Chico (N) and which has to be Santa Monica/Twentynine Palms (S). You also know which of each pair is coastal and which is inland. So, combining these two, identify which data, A, B, C, D belong to which city.

A= B= C= D=

On the graph provided, make a line chart for each of the four cities, using a solid blue line for San Francisco and a broken blue line for Chico and a solid red line for Twentynine Palms and a broken red line for Santa Monica. Make sure to fill in the legend below the chart!

To do this, work with one city at a time to avoid confusion, putting a dot in the middle of the column for each month at the height of its average temperature. Then, connect the dots with the right color and pattern of line and then move on to the next city.

Turn in this answer sheet and the graph, both autographed.