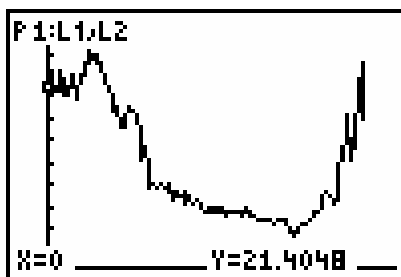


**TEACHER INFORMATION**

## And Now, the Weather... Describing Data with Statistics

1. This activity requires data to be collected for nearly 24 hours using the Remote data collection mode. This method of data collection will not work with the EasyTemp or EasyLink, so you will need to use a Temperature Probe attached to a CBL 2 or LabPro.
2. Since data collection will run for nearly 24 hours, use fresh batteries or use an AC adapter to power the interface.
3. A 24-hour data collection time allows you to set up on one day, and then to have the data collection done during class the following day. You may choose to adjust the data collection time if this does not work with your particular classroom situation.
4. Keep the sensor tip out of direct sunlight, or the correlation with weather reports will be poor.
5. If it is necessary to end data collection early, press the START/STOP button on the interface. In this case the number of samples will be smaller than chosen during setup. See the next point to determine the number of samples.
6. If a student does not record the number of samples chosen during setup on the first day, the number of elements in the list can be determined using the dim( command. One place to find this is in the CATALOG screen.
7. You may need to review unit conversions with students if the only weather report available is in °F.

**SAMPLE RESULTS**



**DATA TABLE**

	by direct calculation	from calculator stats
<b>mean</b>	17.8 °C	17.8 °C
<b>median</b>	16.7 °C	16.7 °C
<b>maximum</b>		23.1 °C
<b>minimum</b>		14.6 °C

## **ANSWERS TO QUESTIONS**

1. The mean and median values calculated directly from the lists and by using the built-in calculator functions are the same.
2. The max and min temperatures recorded at school are similar to, but a few degrees different from, the weather report. The difference is probably due to the weather station values being measured at a different location.
3. Answers will vary.
4. The range alone is not enough; you'd need the minimum or maximum temperature as well in order to dress for a 15 °C range, since that 15 °C could be starting at  $-20\text{ }^{\circ}\text{C}$  or at  $+25\text{ }^{\circ}\text{C}$ .