

Using the graphing calculator to find the Mean, Median, and Mode

If the data set is large, you may wish to use the calculator to find the *mean* and *median*. Enter your data numbers in L_1 using the STAT-EDIT menu. Now press **STAT**, **▶** to CALC, and select 1: 1-Var Stats. Your home screen will show 1-Var Stats, followed by the cursor. Press **2nd** **1** to insert L_1 , and **ENTER**. The screen will display a list of information. \bar{x} is the mean; press **▼** until you see Med, which is the median.

While you cannot find the *mode* directly from the calculator, you can sort the data (entered in L_1) and count the occurrences of each number more easily. Enter your data numbers in L_1 using the STAT-EDIT menu. Now press **STAT**, select 2: Sort A(. Your home screen will show SortA(followed by the cursor. Press **2nd**, **STAT**, select 1: L_1 , and press **ENTER**. The data values in L_1 will now be sorted in ascending order.

Example

The weights, in pounds, of five players on the basketball team are 195, 168, 174, 182, and 181. Find the average weight of a player on this team.

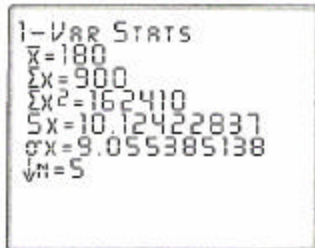
Solution The word *average*, by itself, indicates the *mean*. Therefore:

- (1) Add the five weights: $195 + 168 + 174 + 182 + 181 = 900$.
- (2) Divide the sum by 5, the number of players: $900 \div 5 = 180$.

Calculator Solution Enter the data into list L_1 . Then use 1-Var Stats from the STAT CALC menu to display information about this set of data.

ENTER: **STAT** **▶** **ENTER** **ENTER**

DISPLAY:



```
1-VAR STATS
x̄=180
Σx=900
Σx²=162410
s x=10.12422837
σ x=9.055385138
↓n=5
```

The first value given is \bar{x} , the mean.

Answer 180 pounds ■



The second value given is $\Sigma x = 900$. The symbol Σ represents a sum and $\Sigma x = 900$ can be read as "The sum of the values of x is 900." The list shows other values related to this set of data. The arrow at the bottom of the display indicates that more entries follow what appears on the screen. These can be displayed by pressing the down arrow. One of these is the median (Med = 181). The display also shows that there are 5 data values ($n = 5$). Others we will use in later sections in this chapter and in more advanced courses.