

# 11.1 Calculate One-Variable Statistics

TEKS a.1, a.5, a.6

**QUESTION** How can you use a graphing calculator to find statistics?

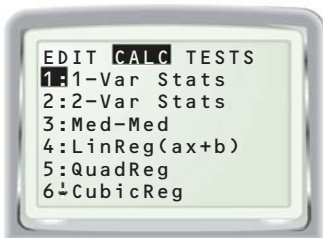
**EXAMPLE** Calculate statistics for a data set

The data set below gives the ages of the first 43 Presidents of the United States when they first took office. Use a graphing calculator to find the mean, median, range, and standard deviation of the data set.

57, 61, 57, 57, 58, 57, 61, 54, 68, 51, 49, 64, 50, 48, 65, 52, 56,  
46, 54, 49, 51, 47, 55, 55, 54, 42, 51, 56, 55, 51, 54, 51, 60, 62,  
43, 55, 56, 61, 52, 69, 64, 46, 54

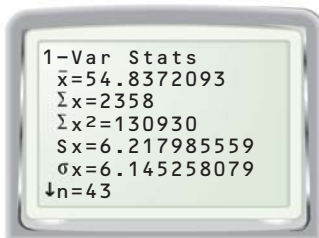
**STEP 1** Calculate statistics

Enter the data in list  $L_1$ . Then press **STAT**, choose the **CALC** menu, and select 1-Var Stats.



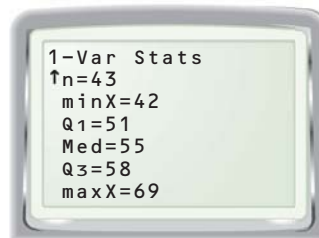
**STEP 2** Read statistics

The screen shows a list of statistics. The mean is  $\bar{x} \approx 54.8$ . The standard deviation is  $\sigma x \approx 6.15$ .



**STEP 3** Scroll down

Scroll down to find that the median (Med) is 55. The range is  $\text{max}X - \text{min}X$ , or 27.



**PRACTICE**

Use a graphing calculator to find the mean, median, range, and standard deviation of the data set.

- 43, 46, 47, 48, 51, 54, 58, 40, 52
- 3.1, 2.7, 6.0, 5.6, 2.3, 2.0, 1.3, 3.4
- 88, 83, 91, 82, 78, 81, 91, 95, 98
- 19.4, 16.3, 12.7, 24.8, 19.2, 15.4
- 110, 107, 101, 108, 106, 112, 104
- 265, 252, 257, 298, 275, 281, 276
- VICE PRESIDENTS' AGES** The data set below gives the ages of the first 46 vice presidents of the United States when they first took office. Use a graphing calculator to find the mean, median, range, and standard deviation of the data set.

53, 53, 45, 65, 68, 42, 42, 50, 56, 50, 52, 49, 66, 36, 51, 56, 45, 61,  
57, 51, 65, 64, 57, 52, 42, 52, 53, 58, 48, 59, 69, 64, 52, 60, 71, 40,  
52, 53, 51, 60, 66, 49, 56, 41, 44, 59