

# Graphing Calculator Lab

## Mean and Median

A graphing calculator is able to perform operations on large data sets efficiently. You can use a TI-73 Explorer graphing calculator to find the mean and median of a set of data.

### ACTIVITY

**SURVEYS** Fifteen eighth graders were surveyed and asked what was their weekly allowance (in dollars). The results of the survey are shown at the right.

Find the mean and median allowance.

15	10	5	5	10
15	5	5	5	10
5	5	10	5	10

**Step 1** Enter the data.

- Clear any existing lists.

KEYSTROKES:  

- Enter the allowances as L1.

KEYSTROKES: 15  10  ... 5 

**Step 2** Find the mean and median.

- Display a list of statistics for the data.

KEYSTROKES:      



Use the down arrow key to locate "Med." The median allowance is \$5 and the mean allowance is \$8.

### EXERCISES

Clear list L1 and find the mean and median of each data set. Round decimal answers to the nearest hundredth.

1. 6.4, 5.6, 7.3, 1.2, 5.7, 8.9
2. -23, -13, -16, -21, -15, -34, -22
3. 123, 423, 190, 289, 99, 178, 156, 217, 217
4. 8.4, 2.2, -7.3, -5.3, 6.7, -4.3, 5.1, 1.3, -1.1, -3.2, 2.2, 2.9, 1.4, 68

### ANALYZE THE RESULTS

5. Look back at the medians found. When is the median a member of the data set?
6. Refer to Exercise 4.
  - a. Which statistic better represents the data, the mean or median? Explain.
  - b. Suppose the number 68 should have been 6.8. Recalculate the mean and median. Is there a significant difference between the first pair of values and the second pair?
  - c. When there is an error in one of the data values, which statistic is less likely to be affected? Why?