Name _____   Date _____
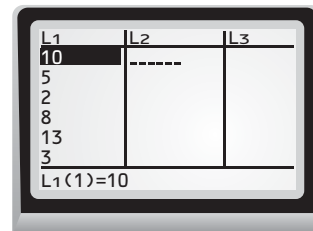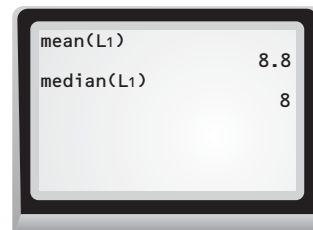
Graphing Calculator Activity: Finding the Mean and Median

For use before the lesson "Use Measures of Central Tendency and Dispersion"

QUESTION   **How can you use a graphing calculator to find the mean and median of a data set?**

The mean, or *average*, of a numerical data set is denoted by $\bar{x}$, which is read as "*x*-bar."

For the data set $x_1, x_2, \ldots, x_n$, the mean is $\bar{x} = \dfrac{x_1 + x_2 + \cdots + x_n}{n}$.

The median of a numerical data set is the middle number when the values are written in numerical order. If the data set has an even number of values, the median is the mean of the two middle values.

EXAMPLE   **Find the mean and median of a data set**

Use a graphing calculator to find the mean and median of the data listed below.

10, 5, 2, 8, 13, 3, 14, 1, 12, 6, 1, 19, 17, 6, 15

STEP 1   Enter the data in list L_1.

L₁	L₂	L₃
10	------	
5		
2		
8		
13		
3		
L₁(1)=10		

STEP 2   Press **2nd** [LIST]. From the math submenu, choose *mean* and then *median*.

```
mean(L₁)
                    8.8
median(L₁)
                      8
```

PRACTICE   **Use a graphing calculator to find the mean and median of the data. Round to the nearest tenth, if necessary.**

1. 5, 3, 15, 5, 12, 17, 19, 10, 2, 9, 13, 8, 17

2. 7.6, 1.9, 4.5, 4.3, 3.1, 2.7, 3.1, 8.1, 5.2, 4.7

3. 745, 947, 756, 218, 439, 610, 625, 404, 300

4. 1559, 2795, 1380, 2044, 1653, 2400, 2926, 2850, 2297, 2396, 1030

<table>
<tr><td>**LESSON 10.2**</td><td># Graphing Calculator Activity:
Finding the Mean and Median <small>continued</small></td></tr>
</table>

For use before the lesson "Use Measures of Central Tendency and Dispersion"

<table>
<tr><td>

TI-83 Plus

From the home screen, enter the following to clear list L_1.

| STAT | 4 | **2nd** | [L1] | **ENTER** | **STAT** | 1 |

Move cursor to list L_1.

10 **ENTER** 5 **ENTER** 2 **ENTER** 8
ENTER 13 **ENTER** 3 **ENTER** 14
ENTER 1 **ENTER** 12 **ENTER** 6
ENTER 1 **ENTER** 19 **ENTER** 17
ENTER 6 **ENTER** 15 **ENTER** **2nd**
[QUIT] **2nd** [LIST] ◀ 3 **2nd** [L1])
ENTER **2nd** [LIST] ◀ 4 **2nd** [L1])
ENTER

</td><td>

Casio CFX-9850GC Plus

From the main menu, choose STAT.

Move cursor to list L_1.

F6 **F4** **F1** 10 **EXE** 5 **EXE** 2 **EXE** 8
EXE 13 **EXE** 3 **EXE** 14 **EXE** 1 **EXE**
12 **EXE** 6 **EXE** 1 **EXE** 19 **EXE** 17
EXE 6 **EXE** 15 **EXE** **MENU** 1 **OPTN**
F1 **F6** **F3** **F6** **F6** **F1** 1) **EXE** **F6** **F4**
F6 **F6** **F1** 1) **EXE**

</td></tr>
</table>

LESSON 10.2

LESSON 10.2

Graphing Calculator Keystrokes

For use with the lesson "Use Measures of Central Tendency and Dispersion"

TI-83 Plus

From the home screen, enter the following to clear list L_1.

`STAT` 4 `2nd` [L1] `ENTER` `STAT` 1

Move cursor to list L_1.

299 `ENTER` 6338 `ENTER` 3006
`ENTER` 518 `ENTER` 1981 `ENTER`
2444 `ENTER` 475 `ENTER` 3065
`ENTER` 7057 `ENTER` 3132 `ENTER`
408 `ENTER` 1534 `ENTER` 2699
`ENTER` `STAT` `▶` 1 `2nd` [L1] `ENTER`

Casio CFX-9850GC Plus

From the main menu, choose STAT.

Move cursor to list L_1.

`F6` `F4` `F1` 299 `EXE` 6338 `EXE` 3006
`EXE` 518 `EXE` 1981 `EXE` 2444 `EXE`
475 `EXE` 3065 `EXE` 7057 `EXE` 3132
`EXE` 408 `EXE` 1534 `EXE` 2699 `EXE`
`F2` `F1`