

## TOPIC: DESCRIBING DATA NUMERICALLY USING A GRAPHING CALCULATOR

### Find 5-Number Summary – TI-84 Calculator

◆ For large data sets, calculating variables like  $\bar{x}$  and  $s$  by hand is very tedious. Use the steps below on a calculator!

#### EXAMPLE

The ages of students in a college statistics class are listed. Use a calculator to find the mean, median, standard deviation, and 1<sup>st</sup> & 3<sup>rd</sup> quartiles of the data sample.

| Student Ages in Statistics class |    |    |    |    |    |    |    |    |    |
|----------------------------------|----|----|----|----|----|----|----|----|----|
| 20                               | 18 | 21 | 22 | 20 | 19 | 31 | 21 | 24 | 22 |
| 19                               | 23 | 18 | 21 | 21 | 22 | 20 | 19 | 27 | 20 |

$$\bar{x} = \underline{\hspace{2cm}} \quad s = \underline{\hspace{2cm}}$$

$$Q_1 = \underline{\hspace{2cm}} \quad \text{Med} = \underline{\hspace{2cm}} \quad Q_3 = \underline{\hspace{2cm}}$$

 **HOW TO: Find a 5-Number Summary on TI-84**

- 1)  , Edit... , type #'s in L<sub>1</sub>
- 2)  ,  (CALC), 1-Var Stats
- 3) List: L<sub>1</sub> , Calculate

Note: Your calculator doesn't know if the data is a sample or population, so it will display extra info.

#### EXAMPLE

The following data is a sample of the monthly salaries (in dollars) of 30 employees at a medium sized company. Use a calculator to find the mean, range, standard deviation, and variance.

| Monthly Salaries (Dollars) |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 4174                       | 4507 | 1860 | 2294 | 2130 | 2095 | 4772 | 4092 | 2638 | 3169 | 1466 | 2238 | 1330 | 2482 | 3135 |
| 4444                       | 4171 | 3919 | 4735 | 1130 | 2685 | 4380 | 1769 | 3391 | 2515 | 4485 | 3853 | 3433 | 2215 | 1955 |