

Mean, Median, Mode, and Range

Vocabulary

Mean –

Median –

Mode –

Range –

Parameter –

Statistic –

Mid-range -

Resistant –

Non-Resistant –

Symbols

Term	Population Symbol	Sample Symbol
Mean		
Median		
Mode		
Midrange		
Summation		
Group size		
Range		

Calculator Functions

Putting in a list – press **stat** then **enter** and put in the values pressing **enter** between each

Clearing a list – use **up arrow** until the list name at top is highlighted then press **clear** and **enter**

Calculating mean and median – press **stat** then go over to **calc** and press **enter** for a 1-var stat
then press **2nd** and the **list number** then **enter**

Finding the mode – press **stat** then go down to **sortA** press **2nd** and the **list #** you want to sort then **enter**
once the calculator says done you can go back to **stat** and **enter** to see the sorted list

Using a frequency list –

Properties and uses of Central Tendency

The Mean

- 1) Computed by using **all** the values in a data set
- 2) The mean for the data set is **unique** and not necessarily one of the data values.
- 3) The mean is affected by extremely high or low values (non-resistant), called outliers, and may not be the best measure of center for these data sets

The Median

- 1) Used when finding the center value of the data set
- 2) Useful when determining whether a data value falls in the top half or bottom half of a data set
- 3) Median is affected very little by extreme values (resistant) in the data set

The Mode

- 1) Used when the most typical case is desired
- 2) Easiest to compute
- 3) Mode can be used with categorical variables to see which category was chosen most often
- 4) There can be one mode (when a single value shows up the most), no mode (when all values show up once), or even several modes (when more than one value shows up the most)

The Midrange

- 1) Easy to compute
- 2) Gives the midpoint of the data (this is not always the median)
- 3) Affected by extreme values (non-resistant)
- 4) May or may not be a data value

Examples: