

(41)

Central Tendency

A measure of central tendency describes the center of a set of data. Measures of central tendency include the mean, median, & mode.

- The mean is the average of the data values.
(add all & divide by total # of values)
- The median is the middle value of the data set.
(#s must be in least to greatest order)
- The mode is the value that occurs most often.
(there can be more than one or none)
- The range of a set of data is the difference between the least & greatest values in the data set.
The range describes the spread of data.

ex 1) The weights in pounds of six members of a basketball team are 161, 156, 150, 156, 150, and 163. Find the mean, median, mode & range.

150, 150, 156, 156, 161, 163

Mean: $\frac{936}{6} = 156$

Median: add + divide $\frac{312}{2} = 156$

Mode: 150 + 156
Range: $163 - 150 = 13$

Unit 6

How to complete in Calculator

Steps :

- ① Select the "data" button.
- ② Input all values in "L1" using the enter button.
- ③ Select "2nd" "data" (for the stats)
- ④ Choose 1-Var Stats (1 column filled up)
- ⑤ "Calc"
- ⑥ $2:\bar{x}$ (mean) $TR: \min X$
 $3:\downarrow$ (Median) $B: \max X$ } used for range

* Mode cannot be found in calc.

Ex 2) The weights in pounds of five cats are 12, 14, 12, 16, & 16. Find the mean, median, mode & range.

mean: 14

Median: 14

mode: 12 & 16

range: $16 - 12 = 4$

+ A value that is very different from the others in a data set is called an outlier.

Ex 3) Using the data set find the following information.

21.9, 32.1, 27.2, 34, 30.2, 30.5, 23.8, 37.3,
30.5, 34.5, 45.5, 30, 29.4

Mean : 31.3

Med : 30.5

Mode: 30.5

Range: 45.5 - 21.9

$$= 23.6$$

Other: 48.5

↑
raises the average