



Semester : 1

Subject : Statistics for AIDS

Academic Year: 2023-2024.

TRIMMED MEAN:

- * The mean is considered the average of a data set.
- * Finding a trimmed mean you ignore an outlier in your data set.
- * An outlier is a value by itself at the beginning or end of a data set.

Example 1:-

(1). Calculate the mean of the following data set:

304, 366, 325, 350, 425, 335.

Mean:-

$$\begin{aligned} &= \frac{304 + 366 + 325 + 350 + 425 + 335}{6} \\ &= \frac{2105}{6} = \boxed{350.83} \end{aligned}$$

Trimmed Mean:- Remove the highest and the lowest.

366, 325, 350, 335

$$\begin{aligned} &= \frac{366 + 325 + 350 + 335}{4} = \frac{1376}{4} \\ &= \boxed{344} \end{aligned}$$



Semester: IV

Subject: Statistics for AIDS Academic Year: 2023-2024.

Example:-

The scores on the last statistics test were.

67, 72, 73, 76, 81, 84, 88, 91, 32, 69, 73, 76, 77, 84, 87, 90, 30, 68, 73, 75, 77, 83, 87, 90 and 92.

$$\bar{X} = \frac{67+72+73+76+81+84+88+91+32+69+73+76+77+84+87+90+30+68+73+75+77+83+87+90+92}{25}$$

$$= \frac{1895}{25} = \boxed{75.8}$$

Calculate the 5% trimmed mean:

Remove 5% from top and low end of data value.

$$0.05(25) = 1.25 \rightarrow \text{lowest integer.}$$

(Remove 1 data from top and low end).

Remove 67 and 92 from dataset.

$$= \frac{1773}{23} = \boxed{77.1}$$

Calculate 10% trimmed mean:

$$0.10(25) = 2.5 \rightarrow 3$$

Remove 3 data values from top and bottom end of data value.

$$= \frac{1}{19} (1493)$$

$$= \boxed{78.6}$$