

Statistics

الموضوع

Descriptive

inferential

* Organizing and summarizing data

* Sample of data

* How?

→ Histogram, Pie charts
graph

To make conclusion
Conclusion on
the population

use Probability

* measures?

→ measures of Central tendency

→ mean → $\bar{X} = \frac{\sum X}{n}$
(average)

(confidence interval
8

Margin of error

→ Median → ordered data

→ Mode → most repeated data

→ measures of Variability

→ Range → difference between the highest and lowest no.

→ Variance

→ Standard deviation

NOTES

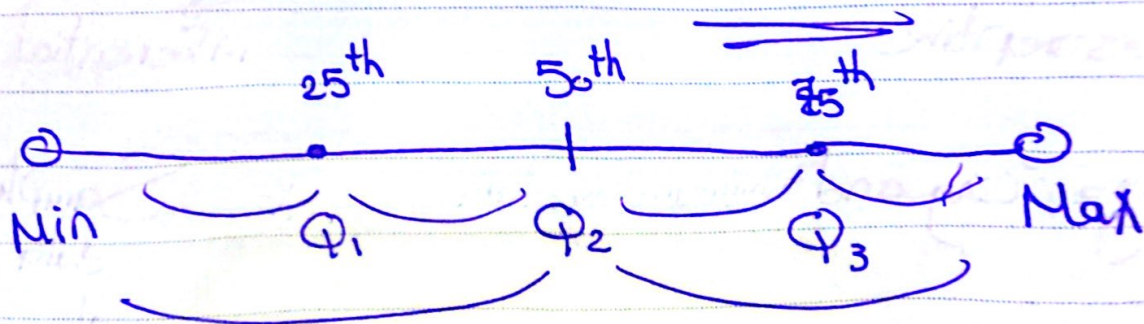
Variance → $S^2 = \frac{\sum (X_i - \bar{X})^2}{n-1}$

Standard deviation →

$$S = \sqrt{\frac{\sum (X_i - \bar{X})^2}{n-1}}$$

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interquartile Range & any outliers



$$IQR = Q_3 - Q_1$$

outliers $\rightarrow [Q - 1.5 IQR, Q_3 + 1.5 IQR]$

if out of
this range

$$\frac{1.5}{n} = 1.5 \leftarrow \text{margin}$$

(opposite)