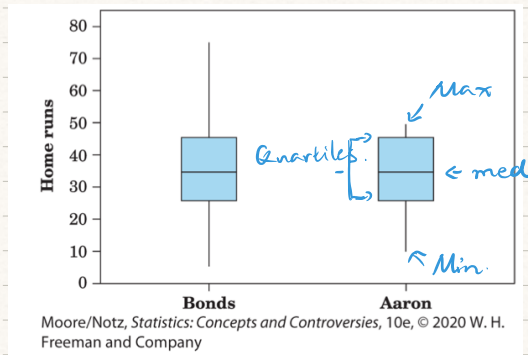
Mean: Average
Median: Middle point of these data.
Quartile: 1/4 points. * Quartile calculation excludes the median. if there's odd number of data.
5-Number Summary:

Boxplot:



Moore/Notz, *Statistics: Concepts and Controversies*, 10e, © 2020 W. H. Freeman and Company

Boxplots can be drawn horizontally or vertically.
The quartiles and the extremes show indicate the variability of the entire data set.

Mean: the ordinary average of the observation.
Standard Deviation: the average distance of observations from the mean.

Distribution

left-skewed
mean < median

Symmetrical
mean = median

right-skewed
mean > median

mean and standard deviation are strongly affected by outliers or by the long tail of a skewed distribution.
median and quartiles are less affected.
5-number summary is better than mean and standard deviation usually, except reasonably symmetric distribution that are free of outliers.

Always start with a graph of your data!

Single quantitive variable => histogram || stemplot
=> add numbers to discribe the center and variability of the distribution

Discription of center and variability { 5-number summary
mean & standard deviation.