

STAT 110 –

Chapter 12 Definitions

median (M) – the midpoint of a distribution, the number such that half the observations are smaller and the other half are larger

To find the median of a distribution:

1. Arrange all observations in order from smallest to largest.
2. Is the number of observations odd or even?

Q1 – the point that is one-quarter up the ordered list of observations

Q3 – the point that is three-quarters up the ordered list of observations

Five number summary: minimum, Q1, median, Q3, and maximum

Boxplot – a graph of the five-number summary

Innerquartile Range - the distance between the first and third quartiles.

The 1.5 X IQR Criterion for Outliers – Call an observation and outlier if it falls more than 1.5 x IQR above the third quartile or below the first quartile.

mean – the average of a set of observations, $\bar{x} = \frac{\text{sum of the observations}}{\text{sample size}}$

standard deviation – s - measures the average distance of the observations from their mean