Section 2: Descriptive Statistics for ungrouped and grouped data

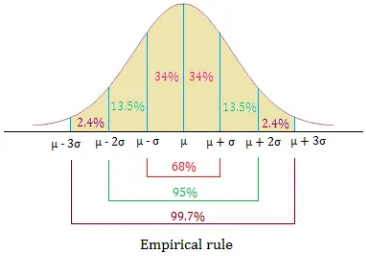
In this section, we learn about

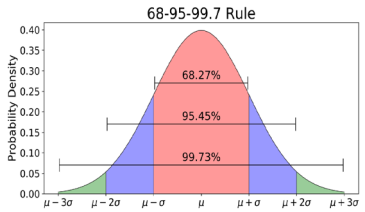
1. How to find **mean, median, mode, range, Q1, Q2, Q3** for a set of data
2. How to draw **Box Plot** and being able to explain it.
3. What is **standard deviation** and how to find it by formula and TI for **ungrouped** data
4. Knowing the difference between for **sample** and **population** standard deviation formula and notation
5. What is **variance** and what formula to use to estimate standard deviation
6. How to graph **Histogram** from frequency table and explain it (skewed or not)
7. Find the **mean** and **standard deviation** for **grouped** data
8. What are three empirical rules and when we can apply them

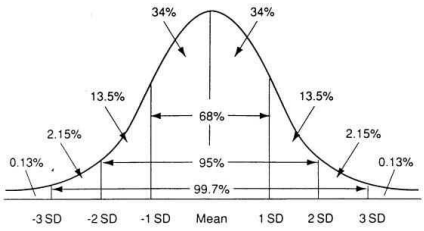
$68\% = \bar{x} \pm \sigma$ or $68\% = \bar{x} \pm s$ **68 %** of data are within 1σ *or* s of the mean ($\bar{x}$)

$95\% = \bar{x} \pm 2\sigma$ or $95\% = \bar{x} \pm 2s$ **95 %** of data are within 2σ *or* $2s$ of the mean ($\bar{x}$)

$99.7\% = \bar{x} \pm 3\sigma$ or $99.7\% = \bar{x} \pm 3s$ **99.7 %** of data are within 3σ *or* $3s$ of the mean ($\bar{x}$)







9. How to locate mean, mode, median from a graph