| Theoretical | Empirical | |
|---|---|---|
| $X$ | $x_1, x_2, \dots, x_n$ | R |
| $\mathbb{E}[X]$ | $\bar{x} = \frac{x_1 + x_2 + \dots + x_n}{n}$ | mean(·) |
| $\mathrm{Var}[X] = \mathbb{E}\left[(X - \mathbb{E}[X])^2\right]$ | $s^2 = \frac{1}{n-1}\sum_{i=1}^{n}(x_i - \bar{x})^2$ | var(·) |
| $\mathrm{SD}[X] = \sqrt{\mathrm{Var}[X]}$ | $s = \sqrt{s^2}$ | sd(·) |