Standard Deviation Calculator

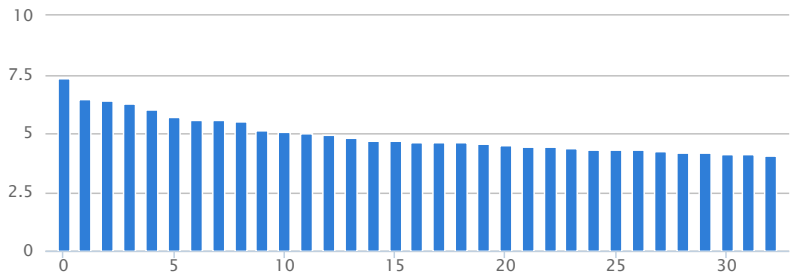
Result

Sample Standard Deviation, s	0.81431349107461
Variance (Sample Standard), s^2	0.66310646174612
Population Standard Deviation, σ	0.80188049392767
Variance (Population Standard), σ^2	0.64301232654169
Total Numbers, N	33
Sum:	162.833100791
Mean (Average):	4.9343363876061

Confidence Intervals, If Normal Distribution

Confidence Level	Range
68.3%, σ	4.1200228965315 - 5.7486498786807
90%, 1.645σ	3.5947906947883 - 6.2738820804238
95%, 1.960σ	3.3382819450998 - 6.5303908301123
99%, 2.576σ	2.8366648345979 - 7.0320079406143
99.9%, 3.291σ	2.2544306884795 - 7.6142420867326
99.99%, 3.891σ	1.7658425938348 - 8.1028301813774
99.999%, 4.417σ	1.3375136975295 - 8.5311590776826
99.9999%, 4.892σ	0.95071478926908 - 8.917957985943

Column Chart of the Values



Please provide numbers separated by comma to calculate.

```
7.323320158,6.428383706,6.366164683,6.234316248
,6.001122334,5.686296672,5.578001438,5.54824561
4,5.527890771,5.134653096,5.046341611,4.9931999
61,4.965772759,4.808165526,4.687218829,4.666719
168,4.622267412,4.59585085,4.593451377,4.568800
```

Calculate

Related

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Standard Deviation

The following is the definition of the standard definition σ, also called **population standard deviation** if the entire population can be measured, where μ is the expectation, x_i is one sample value, and N is the total number of samples. σ^2 is called variance.

$$\sigma = \sqrt{\frac{1}{N}\sum_{i=1}^{N}(x_i - \mu)^2}.$$

One can find the standard deviation of an entire population in cases where every member of a population is sampled. In most cases, this cannot be done. The standard deviation σ is estimated by examining a random sample taken from the population.

Sample Standard Deviation

The most common estimator for σ used is an adjusted version, the sample standard deviation, denoted by "s" and defined as follows. s^2 is the sample standard variance.

$$s = \sqrt{\frac{1}{N-1}\sum_{i=1}^{N}(x_i - \overline{x})^2},$$