Package ‘minsampel2’

October 31, 2022

Type Package
Title The Minimum Sample Size
Version 0.1.0
Description Using this package, one can determine the minimum sample size re-
quired so that the mean square error of the sample mean and the population mean of a distribu-
tion becomes less than some pre-determined epsilon, i.e. it helps the user to determine the mini-
mum sample size required to attain the pre-fixed precision level by minimizing the difference be-
tween the sample mean and population mean.
License GPL-3
Encoding UTF-8
RoxygenNote 7.2.1
Suggests knitr, rmarkdown, testthat (>= 3.0.0)
VignetteBuilder knitr
Config/testthat/edition 3
NeedsCompilation no
Author Anik Paul [aut, cre]
Maintainer Anik Paul <paulanik2019@gmail.com>
Repository CRAN
Date/Publication 2022-10-31 14:07:40 UTC

R topics documented:

  l_exp ................................................................. 2
  l_norm ................................................................. 3

Index
Description

This package helps determining the minimum sample size required to attain some pre-fixed precision level.

Usage

\[ l_{\text{exp}}(n, \text{eps}, \text{theta} = 1) \]

Arguments

- \( n \): a vector of proposed sample size
- \( \text{eps} \): a vector of the precision level
- \( \text{theta} \): the parameter for the underlying distribution, here Exponential Distribution

Details

In any distribution for a large sample the mean-squared error gradually tends to zero, the minimum number depends on the precision level i.e. the pre-fixed epsilon.

Value

- report: the data frame containing the minimum value of the sample size corresponding to the pre-fixed epsilon

References


Examples

\[ l_{\text{exp}}(1:5, 0.5, 1) \]
\textbf{Description}

This package helps determining the minimum sample size required to attain some pre-fixed precision level.

\textbf{Usage}

\texttt{l\_norm(n, eps, mu = 0, sigma = 1)}

\textbf{Arguments}

- \texttt{n}: a vector of proposed sample size
- \texttt{eps}: a vector of the precision level
- \texttt{mu}: the location parameter for the underlying distribution, here normal distribution(mean)
- \texttt{sigma}: the scale parameter for the underlying distribution, here normal distribution(standard deviation)

\textbf{Details}

In any distribution for a large sample the mean-squared error gradually tends to zero, the minimum number depends on the precision level i.e. the pre-fixed epsilon.

\textbf{Value}

report: the data frame containing the minimum value of the sample size corresponding to the pre-fixed epsilon.

\textbf{References}


\textbf{Examples}

\texttt{l\_norm(1:5,0.5,3,1)}
Index

l_exp, 2
l_norm, 3