

PS – LAB 09

IT24103558-Jayawickum H.W.M

IT24101392.R x

Untitled1* x

IT24101392.R x

Source on Save

Run

Source

```
1 setwd("~/Users/dini/Downloads/Y2S1/PS/Lab")
2 # Set seed for reproducibility
3 set.seed(123)
4 # Part (i) Generate random sample
5 sample_size <- 25
6 mu <- 45
7 sigma <- 2
8 baking_times <- rnorm(sample_size, mean = mu, sd = sigma)
9 print(baking_times)
10 # Part (ii) Hypothesis test
11 # H0: mean = 46
12 # H1: mean < 46
13
14 t_test_result <- t.test(baking_times, mu = 46, alternative = "less")
15 print(t_test_result)
16
```

16:1 (Top Level)

R Script

Console

Terminal

Background Jobs

R 4.5.1 - ~/Downloads/Y2S1/PS/Lab/

> setwd("~/Users/dini/Downloads/Y2S1/PS/Lab")
> # Set seed for reproducibility
> set.seed(123)
> # Part (i) Generate random sample
> sample_size <- 25
> mu <- 45
> sigma <- 2
> baking_times <- rnorm(sample_size, mean = mu, sd = sigma)
> print(baking_times)
[1] 43.87905 44.53965 48.11742 45.14102 45.25858 48.43013 45.92183 42.46988 43.62629 44.10868 47.44816 45.71963
[13] 45.80154 45.22137 43.88832 48.57383 45.99570 41.06677 46.40271 44.05442 42.86435 44.56405 42.94799 43.54222
[25] 43.74992
> t_test_result <- t.test(baking_times, mu = 46, alternative = "less")
> print(t_test_result)

One Sample t-test

data: baking_times
t = -2.8167, df = 24, p-value = 0.004776
alternative hypothesis: true mean is less than 46
95 percent confidence interval:
 -Inf 45.58124
sample estimates:
mean of x
44.93334

> |

Environment

History

Connections

Tutorial

R - Global Environment

141 MiB

Data

t_test_result

List of 10

baking_times

num [1:25] 43.9 44.5 48.1 45.1 45.3 ...

iq_95th

124.672804404272

lambda

0.333333333333333

lower

10

max_time

40

mean_iq

100

min_time

0

mu

45

prob

0.486582880967408

prob_above_130

0.0227501319481792

Files

Plots

Packages

Help

Viewer

Presentation

Home

Find in Topic

R Resources

Learning R Online

CRAN Task Views

R on StackOverflow

Getting Help with R

RStudio

Posit Support

Posit Community Forum for the RStudio IDE

Posit Cheat Sheets

RStudio Packages

Posit Products

Manuals

An Introduction to R

Writing R Extensions

R Data Import/Export

The R Language Definition

R Installation and Administration

R Internals

Reference

Packages

Miscellaneous Material

About R

License

NEWS

Authors

FAQ

User Manuals

Resources

Thanks

Technical papers

Search Engine & Keywords