

# Sri Lanka Institute of Information Technology



## Lab 09

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**Probability and Statistics | IT2120**  
B.Sc. (Hons) in Information Technology

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Console Terminal Background Jobs
R 4.5.1 · D:/it24100284/Lab 09/
You are welcome to redistribute it under certain conditions.
Type 'license()' or 'licence()' for distribution details.

Natural language support but running in an English locale

R is a collaborative project with many contributors.
Type 'contributors()' for more information and
'citation()' on how to cite R or R packages in publications.

Type 'demo()' for some demos, 'help()' for on-line help, or
'help.start()' for an HTML browser interface to help.
Type 'q()' to quit R.

> setwd('D:\\it24100284\\Lab 09')
> getwd()
[1] "D:/it24100284/Lab 09"
> #l.
> #i
> baking_times <- rnorm(25, mean=45, sd=2)
> baking_times
 [1] 44.17594 47.22611 45.65286 43.65712 46.99573 43.63502 45.06726 45.58715 43.89276
[10] 43.06559 45.08540 44.89480 46.65737 45.56572 40.61668 43.68882 44.53374 42.60076
[19] 44.62572 45.17502 49.29608 45.31140 43.25146 45.22670 44.43070
> #ii
> t.test(baking_times, mu=46, alternative="less")

One Sample t-test

data:  baking_times
t = -3.5195, df = 24, p-value = 0.0008777
alternative hypothesis: true mean is less than 46
95 percent confidence interval:
 -Inf 45.38161
sample estimates:
mean of x
 44.79664

> #Conclusion - Since p value (0.0005364) is less than 0.05, we can reject H0 at 5% level of significance. Therefore, we can conclude that the true mean baking time is less than 46.
> |
```