Sri Lanka Institute of Information Technology

Lab Submission 09

IT24102063

Samaranayaka S.

Probability and Statistics | IT2120

B.Sc. (Hons) in Information Technology

```r
setwd("D:\\SLIIT\\Y2 S1\\PS\\LAB\\Lab 9")
data <- rnorm(25, mean = 45, sd = 2)
data

result <- t.test(data, mu = 46, alternative = "less")


result
```

```
> setwd("D:\\SLIIT\\Y2 S1\\PS\\LAB\\Lab 9")
> data <- rnorm(25, mean = 45, sd = 2)
> data
 [1] 44.38002 43.17019 45.69788 47.04014 46.20096 46.52821 50.42308 41.97283 46.42466 47.01959 43.47359
[12] 46.91763 44.35569 45.13156 45.16276 42.41409 42.25210 48.48761 41.09022 43.21285 45.93820 44.75825
[23] 47.18156 43.15853 43.30724
> result <- t.test(data, mu = 46, alternative = "less")
> result

	One Sample t-test

data:  data
t = -2.1724, df = 24, p-value = 0.01996
alternative hypothesis: true mean is less than 46
95 percent confidence interval:
    -Inf 45.7935
sample estimates:
mean of x
 45.02798
```