

# Sri Lanka Institute of Information Technology



Lab Submission

Lab sheet No 10

**IT24102669**

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**Probability and Statistics | IT2120**

B.Sc. (Hons) in Information Technology

## Exercise

Snack_Type	Count
A	120
B	95
C	85
D	100

```
Untitled1* x
Source on Save
1 setwd("C:\\Users\\HP\\Desktop\\IT24102669")
2
3 #Exercise
4 #1)
5 #i)
6 # H0:  $\pi = 0.25$  ( $i = 1, 2, 3, 4$ ) (Null Hypothesis)
7 # H1:  $\pi \neq 0.25$  (Alternative Hypothesis)
8
9 #ii)
10 observed <- c(50, 45, 40, 65)
11
12 chisq.test(x = observed, p = rep(1/4, 4))
13
14 #iii)
15 #Conclusions
16 #Significance level = 0.05
17 #p value = 0.0719 > 0.05, so we fail to reject H0
```

Environment History Connections Tutorial

Import Dataset 143 MiB

R Global Environment

Values

observed	num [1:4] 50 45 40 65
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```
Console Terminal Background Jobs
R 4.5.1 · C:/Users/HP/Desktop/IT24102669/
> setwd("C:\\Users\\HP\\Desktop\\IT24102669")
>
> #Exercise
> #1)
> #i)
> # H0:  $\pi = 0.25$  ( $i = 1, 2, 3, 4$ ) (Null Hypothesis)
> # H1:  $\pi \neq 0.25$  (Alternative Hypothesis)
>
> #ii)
> observed <- c(50, 45, 40, 65)
>
> chisq.test(x = observed, p = rep(1/4, 4))

      Chi-squared test for given probabilities

data:  observed
X-squared = 7, df = 3, p-value = 0.0719

>
> #iii)
> #Conclusions
> #Significance level = 0.05
> #p value = 0.0719 > 0.05, so we fail to reject H0
> |
```