

IT2120 - Probability and Statistics

Lab Sheet 10

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Exercise

```
1 setwd("C:\\Users\\ashen\\OneDrive\\Desktop\\PS Lab 10")
2 getwd()
3
4 # Chi-Square Goodness-of-Fit Test for Snack Types
5
6
7 snack_types <- c("A", "B", "C", "D")
8 observed <- c(120, 95, 85, 100)
9
10
11 expected_prob <- c(0.25, 0.25, 0.25, 0.25)
12
13
14 test_result <- chisq.test(x = observed, p = expected_prob)
15
16
17 print("Chi-Square Goodness-of-Fit Test Results:")
18 print(test_result)
19
20
21 print("Expected counts:")
22 print(test_result$expected)
```

```
type = "q" to quit R.
```

```
> setwd("C:\\Users\\ashen\\OneDrive\\Desktop\\PS Lab 10")
> getwd()
[1] "C:/Users/ashen/OneDrive/Desktop/PS Lab 10"
> snack_types <- c("A", "B", "C", "D")
> observed <- c(120, 95, 85, 100)
> expected_prob <- c(0.25, 0.25, 0.25, 0.25)
> test_result <- chisq.test(x = observed, p = expected_prob)
> print("Chi-Square Goodness-of-Fit Test Results:")
[1] "Chi-Square Goodness-of-Fit Test Results:"
> print(test_result)
```

Chi-squared test for given probabilities

```
data: observed
X-squared = 6.5, df = 3, p-value = 0.08966
```

```
> print("Expected counts:")
[1] "Expected counts:"
> print(test_result$expected)
[1] 100 100 100 100
> |
```
