IT2120

Probability and Statistics

IT24104118

Lab 10

R Script

```r
setwd('C:/Users/CYBORG/OneDrive/Desktop/IT24104118')
getwd()

# Chi-Square Goodness-of-Fit Test for Snack Types


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:")
print(test_result)


print("Expected counts:")
print(test_result$expected)
```

Answers

```
> setwd('C:/Users/CYBORG/OneDrive/Desktop/IT24104118')
> getwd()
[1] "C:/Users/CYBORG/OneDrive/Desktop/IT24104118"
> # Chi-Square Goodness-of-Fit Test for Snack Types
>
>
> 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
```

Final Data

Data	
test_result	List of 9
Values	
expected_prob	num [1:4] 0.25 0.25 0.25 0.25
observed	num [1:4] 120 95 85 100
snack_types	chr [1:4] "A" "B" "C" "D"