

Problem_5

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2022-06-17

Chi-squared-test for independence

```
data <- as.table(rbind(c(10, 5, 5), c(10, 20, 10), c(20, 5, 0)))  
dimnames(data) <- list(course = c("calculus", "algebra", "probability"), uni = c("Uni A", "Uni B", "Uni C"))  
(Xsq <- chisq.test(data))
```

```
## Warning in chisq.test(data): Chi-squared approximation may be incorrect
```

```
##
```

```
## Pearson's Chi-squared test
```

```
##
```

```
## data: data
```

```
## X-squared = 20.896, df = 4, p-value = 0.0003321
```

As the p-value is smaller than α ($= 0.05$) we reject the null hypothesis. This means the lecture preference is dependent on the university on a significant level.