

## Aufgabe 21 Lösung.rmd

```
1 ---
2 title: "Lösungen der Übungsaufgaben"
3 author: "Doga Ceren Bozkurt-Sezin Özer"
4 date: "2024-11-24"
5 output: html_document
6 ---
7
8 ```{r}
9 # Installiere und lade das Paket MKpower
10 install.packages("MKpower")
11 library(MKpower)
12 ```
13
14 ```{r}
15 # Prävalenz 2.5%
16 result_025 <- ssize.propCI(prop = 0.025, width= 0.02, method = "wald-cc")
17 print(result_025)
18
19 # Prävalenz 3%
20 result_03 <- ssize.propCI(prop = 0.03, width = 0.03 , method = "wald-cc")
21 print(result_03)
22
23 # Prävalenz 3.5%
24 result_035 <- ssize.propCI(prop = 0.035, width =0.04, method = "wald-cc")
25 print(result_035)
26
27 # Prävalenz 4%
28 result_04 <- ssize.propCI(prop = 0.04, width = 0.05, method = "wald-cc")
29 print(result_04)
30
31 # Prävalenz 4.5%
32 result_045 <- ssize.propCI(prop = 0.045, width = 0.02, method = "wald-cc")
33 print(result_045)
34 ```
35
36
37
38
39 # Prävalenz 3%
40 result_03 <- ssize.propCI(prop = 0.03, width = 0.03 , method = "wald-cc")
41 print(result_03)
42 mit diesen Werten kommt man zu dem gewünschten Ergebnis.
43 Sample size calculation by method of wald-cc
44
45         n = 561.5166
46         prop = 0.03
47         width = 0.03
48         conf.level = 0.95
```