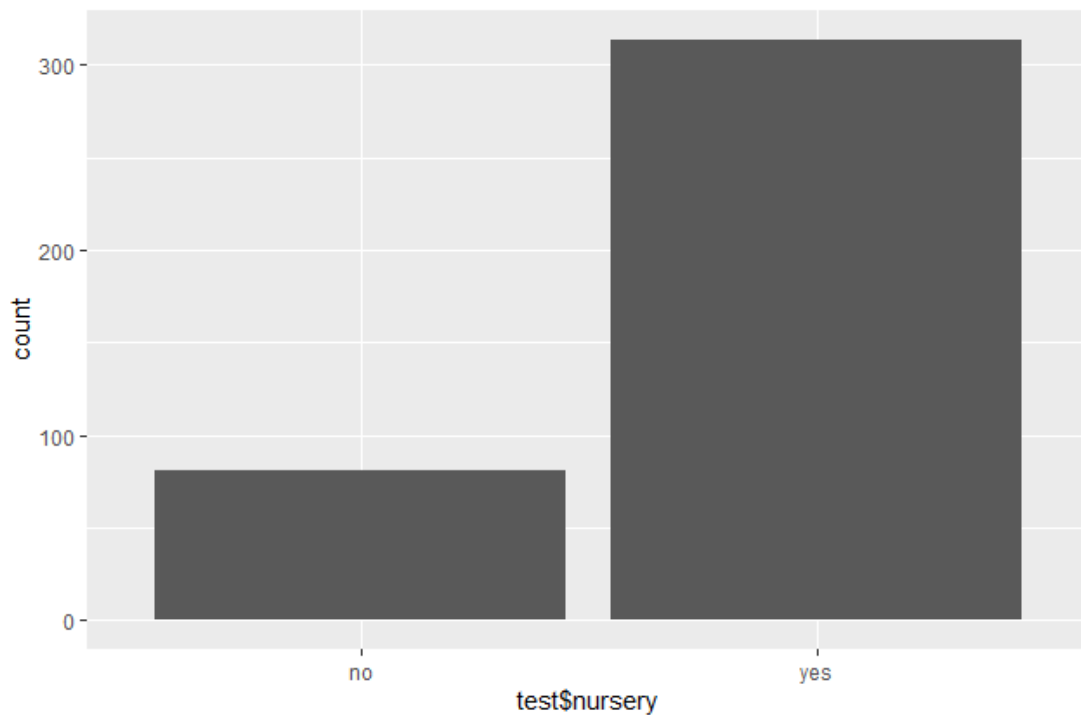


1.



RStudio interface showing the R script, console output, and environment pane.

```

1 library(ggplot2)
2 library(dplyr)
3 library(stats)
4 test <- read.csv("./student-mat.csv")
5
6 #1.看看資料集中有無上幼稚園的分布是不是(3:1)
7 #H0 : 有無上幼稚園的分布相同(符合)
8 #H1 : 有無上幼稚園的分布不相同(不符)
9 ggplot(data.frame(test$nursery), aes(test$nursery)) + geom_bar()
10 table(test$nursery)
11 chisq.test(table(test$nursery), p = c(1/4,3/4))
12
13 # X-squared = 4.254, df = 1, p-value = 0.03916
14 #卡方值 = 4.254, p-value = 0.03916, p-value < 0.05 所以有足夠證據拒絕 H0, 表示男女
15
16

```

Console Output:

```

> #H0 : 有無上幼稚園的分布相同(符合)
> #H1 : 有無上幼稚園的分布不相同(不符)
> ggplot(data.frame(test$nursery), aes(test$nursery)) + geom_bar()
> table(test$nursery)
no yes
81 314
> chisq.test(table(test$nursery), p = c(1/4,3/4))
Chi-squared test for given probabilities
data: table(test$nursery)
X-squared = 4.254, df = 1, p-value = 0.03916

```

Environment Pane:

Variable	Obs. of Variables
d	6 obs. of 2 variables
d_s	4 obs. of 2 variables
d_sa	3 obs. of 2 variables
d_sex	2 obs. of 2 variables
d_status	3 obs. of 2 variables
test	395 obs. of 33 variables

Values:

Variable	Values
a	'table' int [1:2, 1:2] 21 20 ...
Q	Named num [1:5] 1 1 2 2 4
s	int [1:600] 2 3 4 3 3 1 3 1 3...
s_sa	'table' int [1:4, 1:3] 46 46 ...

Files Pane:

Zoom Export

Plot:

test\$nursery

2.

