

EX4

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2/28/2020

a)

##	Incidence.of.no.nausea	Incidence.of.Nausea
## Chlorpromazine	100	52
## Pentobarbital(100mg)	32	35
## Pentobarbital(150mg)	48	37

##	nausea	medicine
## 1	0	Chlorpromazine
## 2	0	Chlorpromazine
## 3	0	Chlorpromazine
## 4	0	Chlorpromazine
## 5	0	Chlorpromazine
## 6	0	Chlorpromazine
## 7	0	Chlorpromazine
## 8	0	Chlorpromazine
## 9	0	Chlorpromazine
## 10	0	Chlorpromazine
## 11	0	Chlorpromazine
## 12	0	Chlorpromazine
## 13	0	Chlorpromazine
## 14	0	Chlorpromazine
## 15	0	Chlorpromazine
## 16	0	Chlorpromazine
## 17	0	Chlorpromazine
## 18	0	Chlorpromazine
## 19	0	Chlorpromazine
## 20	0	Chlorpromazine
## 21	0	Chlorpromazine
## 22	0	Chlorpromazine
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## 101	1	Chlorpromazine
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## 148	1	Chlorpromazine
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## 150	1	Chlorpromazine
## 151	1	Chlorpromazine
## 152	1	Chlorpromazine
## 153	0	Pentobarbital(100mg)
## 154	0	Pentobarbital(100mg)
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## 220	0 Pentobarbital(150mg)
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## 255	0 Pentobarbital(150mg)

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## 256      0 Pentobarbital(150mg)
## 257      0 Pentobarbital(150mg)
## 258      0 Pentobarbital(150mg)
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## 299      1 Pentobarbital(150mg)
## 300      1 Pentobarbital(150mg)
## 301      1 Pentobarbital(150mg)
## 302      1 Pentobarbital(150mg)
## 303      1 Pentobarbital(150mg)
## 304      1 Pentobarbital(150mg)

##                               nausea
## medicine                      0   1
## Chlorpromazine                100 52
## Pentobarbital(100mg)          32 35

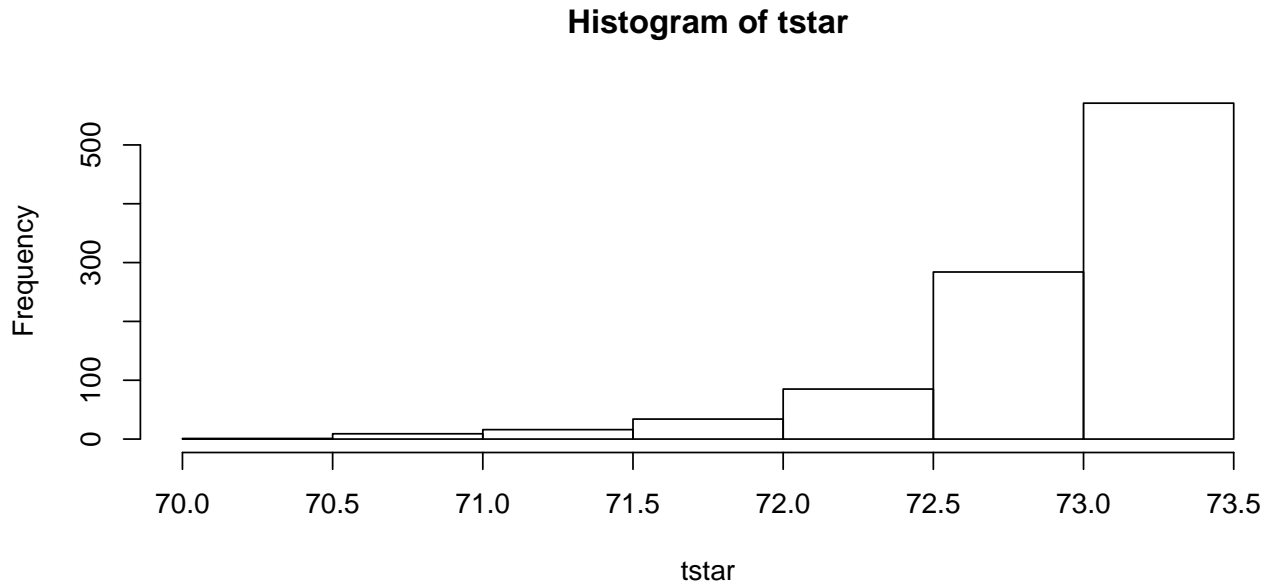
```

```
## Pentobarbital(150mg) 48 37
```

We could see that the result is the same as the dataset “nauseatable.txt”, so the dataframe we created is correct.

b)

```
## The following objects are masked _by_ .GlobalEnv:
##
## label_medic, nausea
```



```
## [1] 71.82106
```

```
## [1] 0.045
```

We could see that p-value is 0.041, less than 0.05. Therefore, H_0 should be rejected which means the medicine doesn't work equally well against nausea.

```
## X-squared
## 6.624765
```

By using chisquared test we could get the result which is 6.62 and we could use this to calculate the p-value. While in permutation test the result is 71.82, they use different values to calculate the final p-value.

c)

```
##
## Pearson's Chi-squared test
##
## data: xtabs(~newNausea$medicine + newNausea$nausea)
## X-squared = 6.6248, df = 2, p-value = 0.03643
```

We could see from chisquared test that p-value is 0.03643, smaller than 0.05, therefore, H_0 should be rejected. And the p-value of both tests are close to each other. In conclusion, they use different methods but the results are the same.