1817

Experiment-6.

TESTING & HYPOTHESIS.

EXP-A :- NULL hypothesis significance testing.

A small t-value typically less than 0.05 indicates strong evidance against null hypothesis, so we can reject it.

A large p-value greater than 0.05 indicates weak evidance against null hypothesis, so we can fail to reject it.

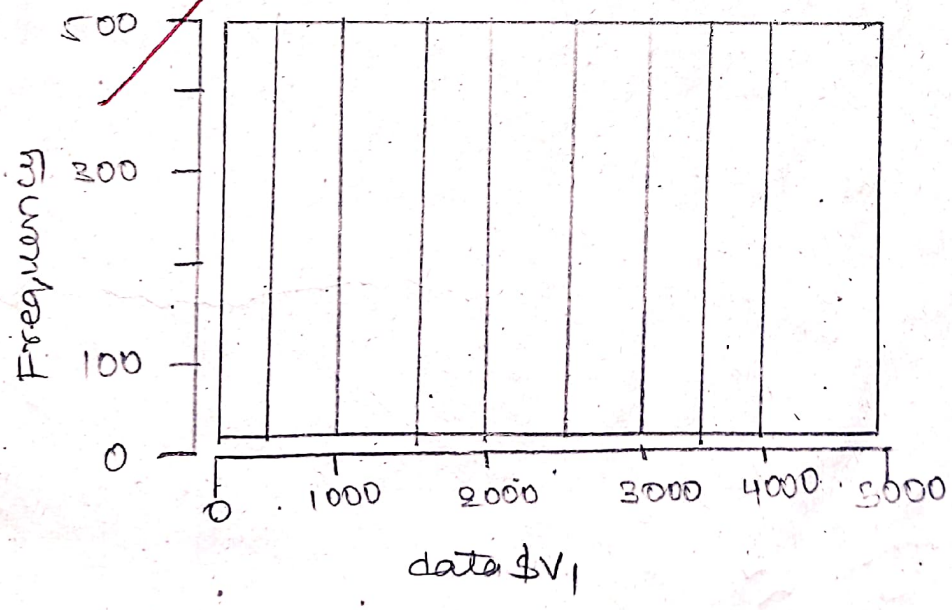
Eg:- T.test(X$ colname, u=23, alternative="less").

t = 121.36, df = 4999, p-value = 1
alternative hypothesis : true mean is less than 23
95 percent confidence interval :
-Inf 2534.085
sample estimates : mean of x = 2500.5

t.test(data $V1, mu=23, alternative="less").

hist(X$ colname).

hist(data $V1).



Exp-B :- Testing the mean of one sample..

Eg:- T.test(X, alternative = "less", u=0, conf.level =0.95)

```
data<-read.csv("sample 1.csv")
t.test(data$x3, alternative = "less", mu=10,
       conf.level = 0.95):
```

```
data : data$x3
t=14.807, df=98, p-value=1
alternative hypothesis : true mean is less than 0
95 percent confidence interval:
        -Inf 5658.321
Sample estimates:
 mean of x
  5087.747.
```

Exp-6 Testing two means :

Eg:- T.test (x, y, Var.equal = True, paired = FALSE)

Two sample t-test.

data : data $X1 and data $X3
t = -14.658, df = 196, p-value < 2.2e-16
alternative hypothesis : true difference in means
is not equal to 0
95 percent confidence interval :
-5714.408 -4359.087
sample estimates :
mean of x mean of y
51.000 5087.747.

data : data $ X.213.25 and data $ X38.94
t = 0.40661 / df = 196, p-value = 0.6847
95 percent confidence interval :
-115.1749 175.0029.
alternative hypothesis : true difference in means
is not equal to 0.

sample estimates :
mean of X mean of Y
107.73131 77.81727.

10/5/22