***CUTLETS***

*Business Problem*: Significant difference in the Diameter of cutlet between two units?.

5% significance level.

Given data is normal?

Ho = Data is Normal.

Ha = Data is Not normal.

P>0.05 => P high Ho fly => accept Ho

P<0.05 => P low Ho go => reject Ho

*Normality test* = shapiro.test

P value is greater 0.05 so P high Ho fly which implies that the given data is Normal.

External conditions of the given data are same.

*Paired T test*

Ho= Difference in the Diameter of cutlet between two units.

Ha=No Difference in the Diameter of cutlet between two units.

P value is greater than 0.05 => P high Ho fly .

There is a significant difference in the Diameter of cutlet between two units.



***TAT Laboratories***

*Business Problem*: Is there any difference in average TAT among the different laboratories?.

Significance level= 5%

Given data is normal?

Ho = Data is Normal.

Ha = Data is Not normal.

*Normality test* = shapiro.test

P value is greater than 0.05 so P high Ho fly which implies that the given data is Normal.

Variance are equal?

*leveneTest*

Ho = variance are equal.

Ha = variance are not equal.

P value is greater than 0.05 so P high Ho fly which implies that the Variance are equal.

*One way ANOVA test*

Ho=there is a difference in average TAT among the different laboratories.

Ha= there is No difference in average TAT among the different laboratories.

P value is less than 0.05 so P low Ho go which implies that reject Ho hypothesis.

There is No difference in average TAT among the different laboratories.



***Buyer Ratio***

Business Problem: male-female buyer ratios are similar across regions?

Significance value=5%

Given data is normal?

Ho = Data is Normal.

Ha = Data is Not normal.

*Normality test* = shapiro.test

P value is less than 0.05 so P low Ho go which implies that reject Ho hypothesis that is data is NOT Normal.

here the data is not normal so here we are using the mood’s median test.

*mood’s median test*

Ho= male-female buyer ratios are similar across regions.

Ha= male-female buyer ratios are NOT similar across regions.

P value is greater than 0.05 so P high Ho fly which implies that the male-female buyer ratios are similar across regions.



***Fantaloons***

*Business Problem*: % of males versus females walking into the store differ based on day of the week?.

Significance level=5%

Both x and y are in discrete.

Propotion.test

Ho=there is difference in males versus females walking into the store based on day of week.

Ha= there is No difference in males versus females walking into the store based on day of week.

P value >0.05 =>accept Ho.

% of males versus females walking into the store differ based on day of the week.

