A F&B manager wants to determine whether there is any significant difference in the diameter of the cutlet between two units. A randomly selected sample of cutlets was collected from both units and measured? Analyze the data and draw inferences at 5% significance level. Please state the assumptions and tests that you carried out to check validity of the assumptions.

Minitab File : **Cutlets.mtw**

2 sample ttest

Ho : there is no difference in diameter of cutlet between two units Ha : there is significant difference in diameter of cutlet between two units

p value(0.47) > significant level, Fail to reject Ho → there is no difference in diameter of cutlet between two units

**Hypothesis Testing Exercise**

A hospital wants to determine whether there is any difference in the average Turn Around Time (TAT) of reports of the laboratories on their preferred list. They collected a random sample and recorded TAT for reports of 4 laboratories. TAT is defined as sample collected to report dispatch.

Analyze the data and determine whether there is any difference in average TAT among the different laboratories at 5% significance level.

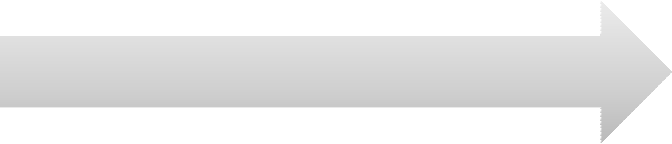
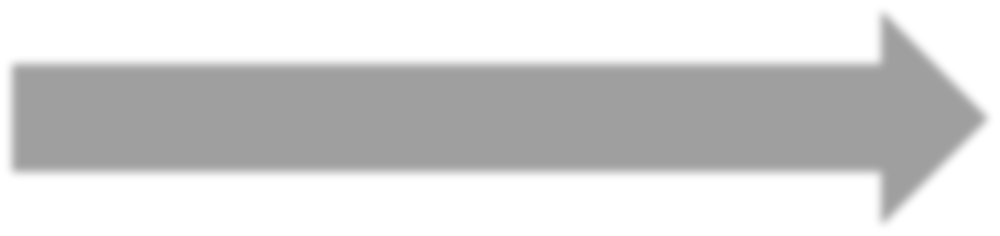
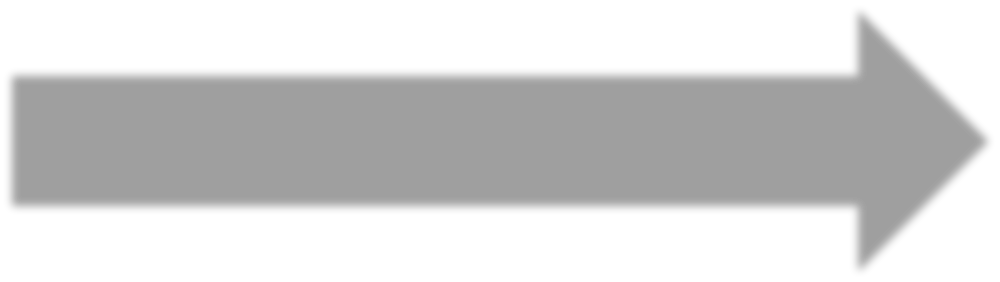
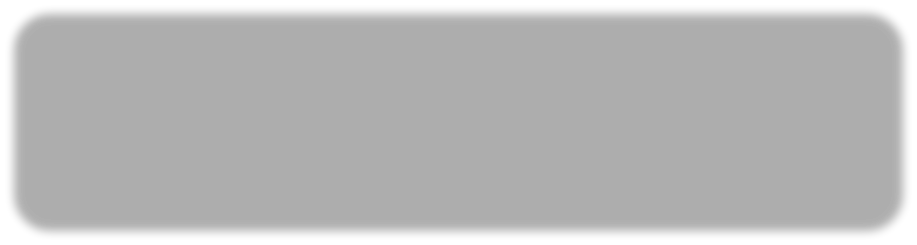
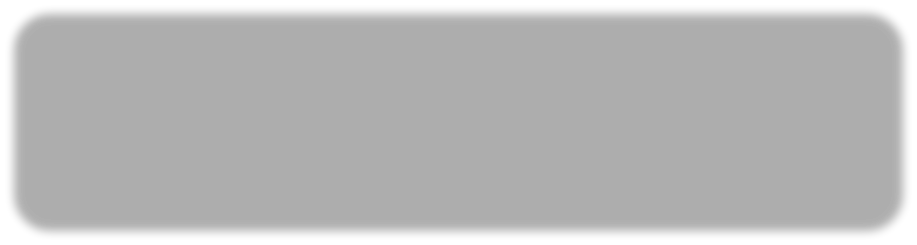
Minitab File: **LabTAT.mtw**

Anova ftest statistics

Ho : There is no difference in average TAT Ha : There is difference in average TAT

P\_value(2.277)> Significant→ Fail to reject Ho: There is no difference in average TAT

Sales of products in four different regions is tabulated for males and females. Find if male-female buyer rations are similar across regions.



H0

* All proportions are equal

1.

2.

Ha

* Not all Proportions are equal

Check p-value

If p-Value < alpha, we reject Null Hypothesis

Inference: p\_value> alpha→ Fail to reject Ho: All proportion are equal.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **East** | **West** | **North** | **South** |
| Males | 50 | 142 | 131 | 70 |
| Females | 550 | 351 | 480 | 350 |

TeleCall uses 4 centers around the globe to process customer order forms. They audit a certain % of the customer order forms. Any error in order form renders it defective and has to be reworked before processing. The manager wants to check whether the defective % varies by centre. Please analyze the data at *5%* significance level and help the manager draw appropriate inferences

Minitab File: **CustomerOrderForm.mtw**

Chi2 contengency independence test

Ho: The defective does not varies by center Ha: The defective varies by center

P\_value(0.277)> Significant level→ Fail to reject Ho: The defective does not varies by center