**Hypothesis Testing-cutlets**

**> ## Normality Test ##**

> ad.test(Unit.A)

Anderson-Darling normality test

data: Unit.A

A = 0.43309, **p-value = 0.2866**

> ad.test(Unit.B)

Anderson-Darling normality test

data: Unit.B

A = 0.26123, **p-value = 0.6869**

> shapiro.test(Unit.A)

Shapiro-Wilk normality test

data: Unit.A

W = 0.96495, **p-value = 0.32**

> shapiro.test(Unit.B)

Shapiro-Wilk normality test

data: Unit.B

W = 0.97273, **p-value = 0.5225**

**Both Unit A and Unit B are normally distributed.**

**> var.test(Unit.A,Unit.B)**

F test to compare two variances

data: Unit.A and Unit.B

F = 0.70536, num df = 34, denom df = 34, **p-value = 0.3136**

alternative hypothesis: true ratio of variances is not equal to 1

95 percent confidence interval:

0.3560436 1.3974120

sample estimates:

ratio of variances

0.7053649

**## 2 Sample T-test ##**

> t.test(Unit.A,Unit.B,alternative = **"two.sided",**

+ conf.level = 0.95,correct = TRUE)

Welch Two Sample t-test

data: Unit.A and Unit.B

t = 0.72287, df = 66.029, **p-value = 0.4723**

alternative hypothesis: true difference in means is not equal to 0

95 percent confidence interval:

-0.09654633 0.20613490

sample estimates:

mean of x mean of y

7.019091 6.964297

**P value is 0.472 > 0.05 , so accepting Ho and rejecting H1**

**## 2 Sample T-test ##**

> t.test(Unit.A,Unit.B,alternative = **"greater",**

+ conf.level = 0.95,correct = TRUE)

Welch Two Sample t-test

data: Unit.A and Unit.B

t = 0.72287, df = 66.029, **p-value = 0.2362**

alternative hypothesis: true difference in means is greater than 0

95 percent confidence interval:

-0.07166173 Inf

sample estimates:

mean of x mean of y

7.019091 6.964297

**P value is 0.236 > 0.05 , so accepting Ho and rejecting H1**

**## 2 Sample T-test ##**

> t.test(Unit.A,Unit.B,alternative = **"less",**

+ conf.level = 0.95,correct = TRUE)

Welch Two Sample t-test

data: Unit.A and Unit.B

t = 0.72287, df = 66.029, **p-value = 0.7638**

alternative hypothesis: true difference in means is less than 0

95 percent confidence interval:

-Inf 0.1812503

sample estimates:

mean of x mean of y

7.019091 6.964297

**P value is 0.764 > 0.05 , so accepting Ho and rejecting H1**