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

**Ans :**

**R Code :**

## Hypothesis Testing

########## BuyerRatio Data Set #########

BuyerRatio <- read.csv('D:\\Data Science\\Excelr\\Assignments\\Assignment\\Hypothesis Testing\\BuyerRatio.csv')

attach(BuyerRatio)

View(BuyerRatio)

t1 <- BuyerRatio$East

t2 <- BuyerRatio$North

t3 <- BuyerRatio$South

t4 <- BuyerRatio$West

t = data.frame(t1,t2,t3,t4)

View(t)

chisq.test(t)

**Results :**

> chisq.test(t)

Pearson's Chi-squared test

data: t

X-squared = 1.5959, df = 3, p-value = 0.6603

**Inference :**

The assumptions were as below :

Ho = All proportions are equal.

Ha = Not all proportions are equal.

From the chisq.test we got p-value greater than 0.05 i.e. 0.6603.

Hence, we accept the null Hypothesis.