In [2]:
```
import pandas as pd
import numpy as np
from scipy import stats
```

In [3]:
```
buyer_data=pd.read_csv('BuyerRatio.csv')
buyer_data
```

Out[3]:

	Observed Values	East	West	North	South
0	Males	50	142	131	70
1	Females	435	1523	1356	750

H0 == The male-female buyer rations are similar across regions H1 == The male-female buyer rations are not similar across regions Hence there are more than two variables we perform chisquare test...

chi-squared Test

In [6]:
```
stats.chi2_contingency([buyer_data["East"],buyer_data ["West"], buyer_data["North"],buyer_data["South"]])
```

Out[6]:
```
(1.5959455386610577,
 0.6603094907091882,
 3,
 array([[  42.76531299,  442.23468701],
        [ 146.81287862, 1518.18712138],
        [ 131.11756787, 1355.88243213],
        [  72.30424052,  747.69575948]]))
```

In [ ]:
```
Here p_value=0.06 which is greater than 0.05.So, we do not reject Null Hypothesis.Hence, HO is accepted..
```