In [1]:
```
# Chi-Squared Test
from scipy.stats import chi2_contingency
table = [[10, 20, 30],[6,  9,  17]]

#The expected frequencies are computed based on the marginal sums
#under the assumption of independence
```

In [2]:
```
stat, p, dof, expected = chi2_contingency(table)
```

In [3]:
```
print('P value:', p)
print('dof value:', dof)
if p > 0.05:
    print('independent')
else:
    print('dependent')
```

```
P value: 0.873028283380073
dof value: 2
independent
```

In [4]:
```
table = [[10, 20, 30, 40],[30,  30,  30, 30]]
```

In [5]:
```
stat, p, dof, expected = chi2_contingency(table)
```

In [6]:
```
print('P value:', p)
print('dof value:', dof)
if p > 0.05:
    print('independent')
else:
    print('dependent')
```

```
P value: 0.008456754021849054
dof value: 3
dependent
```

In [ ]:
```

```