

```
*SAS CHI SQUARE;  
/*
```

A chi-square test is used to examine the association between two categorical variables. It can be used to test both extent of dependence and extent of independence between Variables. SAS uses PROC FREQ along with the option chisq to determine the result of Chi-Square test.

Syntax:

```
PROC FREQ DATA = dataset;  
TABLES variables  
/CHISQ TESTP = (percentage values);
```

Variables are the variable names of the dataset use in chi-square test.

Percentage Values in the TESTP statement represent the percentage of levels of the variable.

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In the below example we consider a chi-square test on the variable named type in the dataset SASHELP.CARS. This variable has six levels and we assign percentage to each level as per the design of the test.

```
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```

```
proc freq data = sashelp.cars;  
tables type  
/chisq  
testp = (0.20 0.12 0.18 0.10 0.25 0.15);  
run;
```

```
*Two Way chi-square;
```

```
/*
```

Two way Chi-Square test is used when we apply the tests to two variables of the dataset.

```
*/
```

```
proc freq data = sashelp.cars;  
tables type*origin  
/chisq  
;  
run;
```