1)

```
data mydata;
  input drug $ nausea $ count;
  datalines;
  DrugGiven Nauseated 15
  DrugGiven NotNauseated 35
  PlaceboGiven Nauseated 4
  PlaceboGiven NotNauseated 46
  ;
run;
proc print data=mydata;
run;
proc freq data=mydata;
  tables drug*nausea / chisq;
run;
```

Chi-Square Test for Independence

The FREQ Procedure

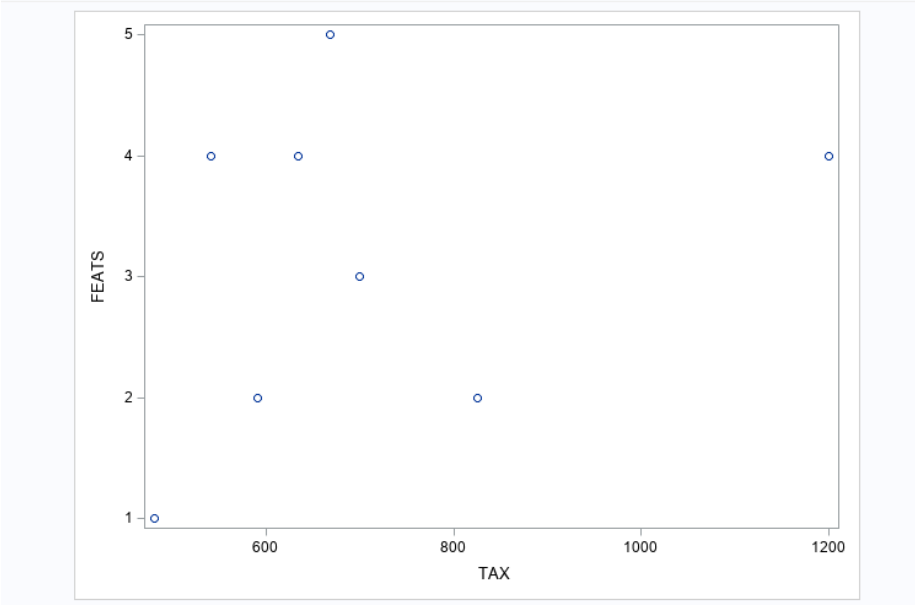
Drug	Nauseated	Not Nauseated
Drug Given	15	35
Placebo Given	4	46

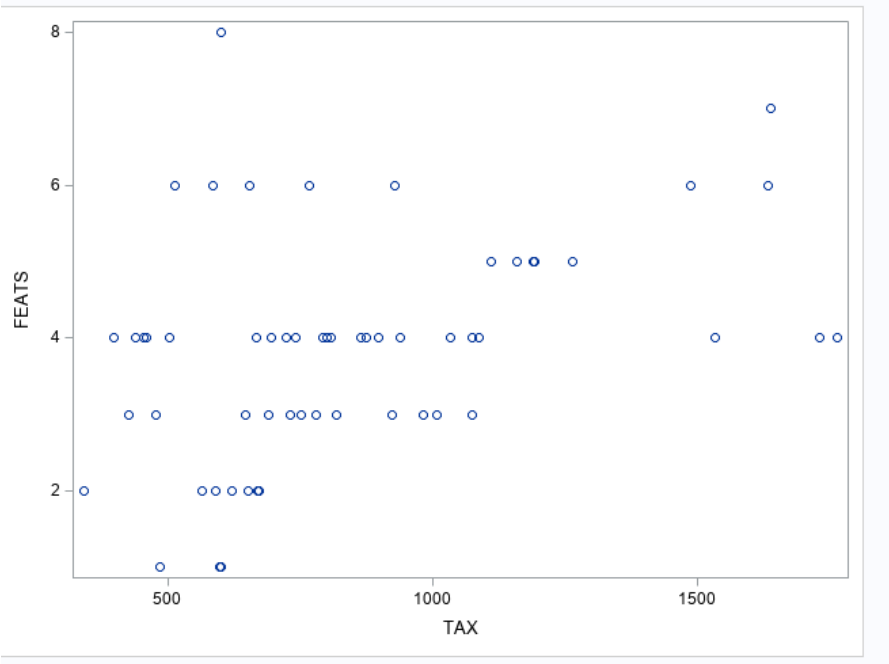
Chi-Square	4.85
DF	1
Pr > ChiSq	0.028

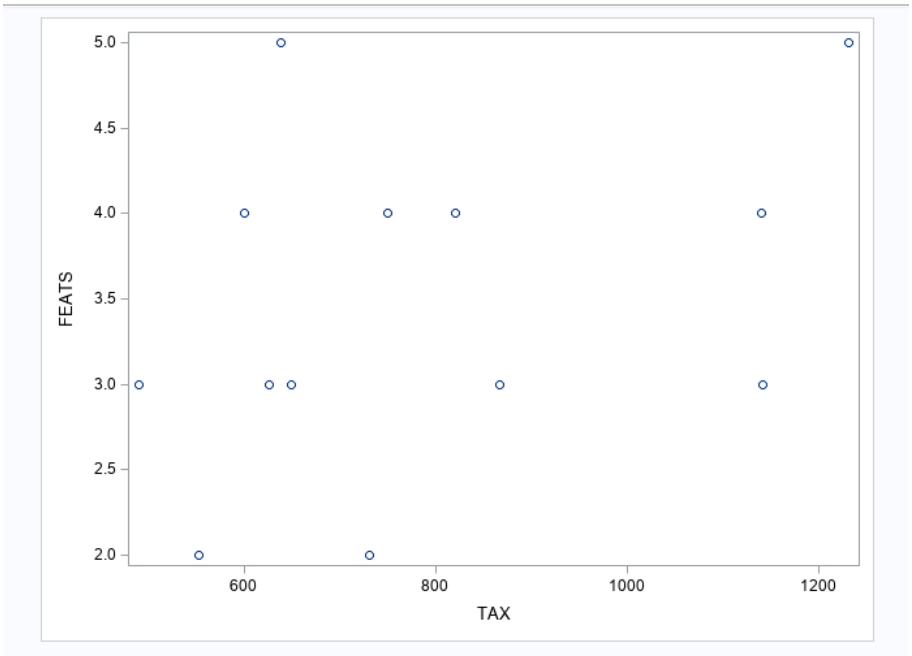
2)

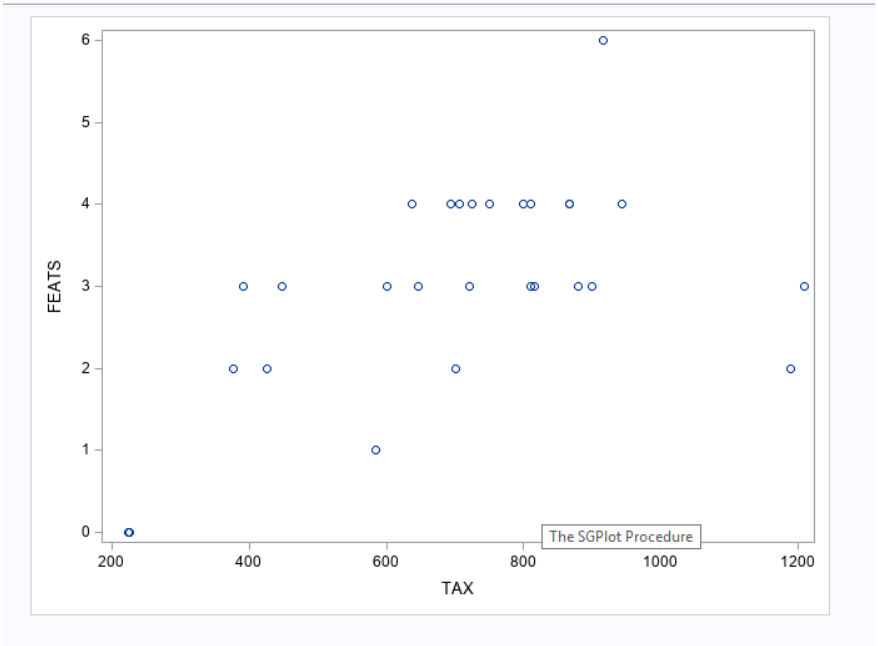
```
data homes;
infile 'home.txt';
input PRICE SQFT AGE FEATS NE CUST COR TAX;
run;
proc print data=homes;
run;
proc sgplot data=homse;
 where COR = 0 and NE = 0;
 scatter x=TAX y=FEATS;
run;
proc sgplot data=homes;
 where COR = 1 and NE = 0;
 scatter x=TAX y=FEATS;
run;
proc sgplot data=homes;
```

```
  where COR = 0 and NE = 1;
  scatter x=TAX y=FEATS;
run;
proc sgplot data=homes;
  where COR = 1 and NE = 1;
  scatter x=TAX y=FEATS;
run;
```





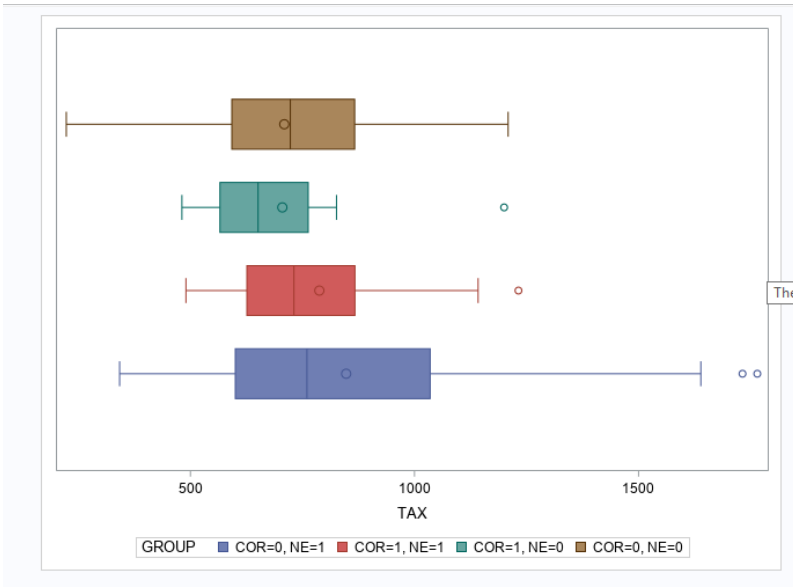




When it is a corner location or not as well as not northeast there seems to be a relationship.

```
data homes;
  set homes;
  if COR = 0 and NE = 0 then GROUP = 'COR=0, NE=0';
  if COR = 0 and NE = 1 then GROUP = 'COR=0, NE=1';
  if COR = 1 and NE = 0 then GROUP = 'COR=1, NE=0';
  if COR = 1 and NE = 1 then GROUP = 'COR=1, NE=1';
run;
```

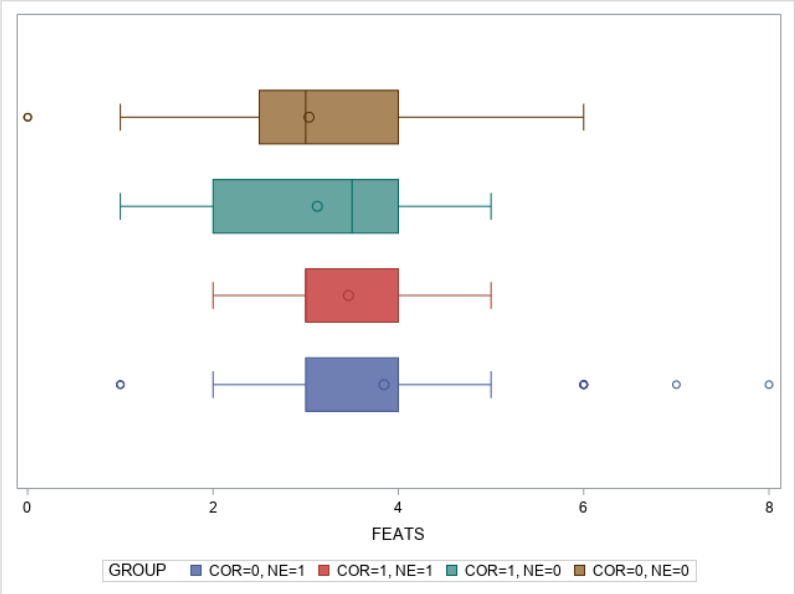
```
proc sgplot data=homes;
  hbox TAX / group=GROUP;
run;
```



If a house is not in a corner and norther east, there is an impact on the amount of annual tax

```
data homes;
  set homes;
  if COR = 0 and NE = 0 then GROUP = 'COR=0, NE=0';
  if COR = 0 and NE = 1 then GROUP = 'COR=0, NE=1';
  if COR = 1 and NE = 0 then GROUP = 'COR=1, NE=0';
  if COR = 1 and NE = 1 then GROUP = 'COR=1, NE=1';
run;

proc sgplot data=homes;
  hbox FEATS / group=GROUP;
run;
```



If a house is in a corner and not northeast it has an impact on the number of features