

DISCTREE Analysis of Dependent variable: CLUSTER

Values of X4 :

	COL1	COL2	COL3	COL4	COL5	COL6	COL7	COL8	COL9	COL10	COL11	COL12	COL13
ROW1	55	63	70	73	74	81	82	85	90	92	93	96	100

	COL14	COL15	COL16	COL17	COL18	COL19	COL20	COL21	COL22	COL23	COL24	COL25
ROW1	102	103	105	109	110	114	115	124	127	128	130	134

	COL26	COL27	COL28	COL29	COL30	COL31	COL32	COL33	COL34	COL35	COL36	COL37
ROW1	135	138	140	141	142	145	147	150	151	153	155	160

	COL38	COL39	COL40	COL41	COL42	COL43	COL44	COL45	COL46	COL47	COL48	COL49
ROW1	164	165	168	170	172	178	180	185	190	200	202	208

	COL50	COL51	COL52	COL53	COL54	COL55	COL56	COL57
ROW1	210	214	217	225	255	278	295	300

Values of X15 :

	COL1	COL2	COL3	COL4	COL5	COL6	COL7	COL8	COL9	COL10	COL11	COL12	COL13
ROW1	1695	1845	1965	2045	2055	2240	2270	2285	2295	2345	2350	2440	2450

	COL14	COL15	COL16	COL17	COL18	COL19	COL20	COL21	COL22	COL23	COL24	COL25
ROW1	2475	2490	2495	2530	2545	2575	2620	2640	2670	2690	2705	2710

	COL26	COL27	COL28	COL29	COL30	COL31	COL32	COL33	COL34	COL35	COL36	COL37
ROW1	2775	2785	2810	2850	2865	2880	2885	2890	2895	2910	2920	2950

	COL38	COL39	COL40	COL41	COL42	COL43	COL44	COL45	COL46	COL47	COL48	COL49
ROW1	2970	2985	3030	3040	3050	3080	3085	3195	3200	3240	3245	3325

	COL50	COL51	COL52	COL53	COL54	COL55	COL56	COL57	COL58	COL59	COL60	COL61
ROW1	3375	3380	3405	3450	3470	3490	3495	3510	3515	3525	3560	3570

	COL62	COL63	COL64	COL65	COL66	COL67	COL68	COL69	COL70	COL71	COL72	COL73
ROW1	3610	3620	3640	3695	3705	3715	3730	3735	3785	3805	3910	3935

	COL74	COL75	COL76	COL77	COL78	COL79	COL80
ROW1	3950	3960	4000	4025	4055	4100	4105

Values of C3 : Compact Large Midsize Small Sporty Van

Values of	B2	:	0	1
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Dependent variable (DV):	CLUSTER
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DV values:	1	2	3
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----- Split node:	1
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Splits Considered for Node	1
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Predictor	Type	Chi-Square	Adjusted p
X4	Ordinal	136.97	0.0001
C3	Nominal	62.44	0.0001
X15	Ordinal	122.89	0.0001
B2	Nominal	0.70	0.7052

Best split:	X4	Ordinal	with p =	0.0000
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*** Perform split

New node:	7	X4	=	217	225	255	278	295	300
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DV count:	0	7	0
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Only one nonempty category of DV

New node:	6	X4	=	200	202	208	210	214
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DV count:	0	4	3
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New node:	5	X4	=
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	COL1	COL2	COL3	COL4	COL5	COL6	COL7	COL8	COL9	COL10	COL11
ROW1	141	142	145	147	150	151	153	155	160	164	165

	COL12	COL13	COL14	COL15	COL16	COL17	COL18
ROW1	168	170	172	178	180	185	190

DV count:	0	0	30
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Only one nonempty category of DV

New node:	4	X4	=	128	130	134	135	138	140
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DV count:	3	0	9
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New node:	3	X4	=
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	COL1	COL2	COL3	COL4	COL5	COL6	COL7	COL8	COL9	COL10
ROW1	100	102	103	105	109	110	114	115	124	127

DV count:	12	0	6
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New node:	2	X4	=
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	COL1	COL2	COL3	COL4	COL5	COL6	COL7	COL8	COL9	COL10	COL11	COL12
ROW1	55	63	70	73	74	81	82	85	90	92	93	96

DV count:	18	0	0
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Only one nonempty category of DV

----- Split node:	3
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Splits Considered for Node	3
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Predictor	Type	Chi-Square	Adjusted p
X15	Ordinal	14.14	0.0029
C3	Nominal	7.20	0.1094
X4	Ordinal	8.57	0.4777
B2	Nominal	0.00	1.0000

Best split:	X15	Ordinal	with p =	0.0029
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*** Perform split

New node:	9	X15	=	2880	2890	2970	2985	3080	3195	3960
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DV count:	1	0	6
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New node:	8	X15	=
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	COL1	COL2	COL3	COL4	COL5	COL6	COL7	COL8	COL9	COL10	COL11
ROW1	2350	2440	2450	2490	2530	2545	2575	2620	2710	2785	2850

DV count:	11	0	0
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Only one nonempty category of DV

----- Split node:	9
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Splits Considered for Node	9
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Predictor	Type	Chi-Square	Adjusted p
X15	Ordinal	7.00	0.3208
B2	Nominal	0.47	0.4945
C3	Nominal	0.88	0.6456
X4	Ordinal	0.88	0.8315

Best split:	X15	Ordinal	with p =	0.3208
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*** Reject split

----- Split node:	4
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Splits Considered for Node	4
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Predictor	Type	Chi-Square	Adjusted p
C3	Nominal	7.20	0.1094
X15	Ordinal	12.00	0.3636
B2	Nominal	0.80	0.3711
X4	Ordinal	4.89	0.4296

Best split:	C3	Nominal	with p =	0.1094
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*** Reject split

----- Split node:	6
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Splits Considered for Node	6
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Predictor	Type	Chi-Square	Adjusted p
X15	Ordinal	3.73	0.3200
B2	Nominal	0.19	0.6592
C3	Nominal	0.19	0.6592
X4	Ordinal	1.56	0.8168

Best split:	X15	Ordinal	with p =	0.3200
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*** Reject split

DISCTREE Analysis of Dependent Variable (DV) CLUSTER

CLUSTER value(s): 1 2 3

DV counts: 33 11 48 Best p-value(s): 0.0001 0.0001

X4 value(s): 55 63 70 73 74 81 82 85 90 92 93 96
DV counts: 18 0 0

X4 value(s): 100 102 103 105 109 110 114 115 124 127
DV counts: 12 0 6 Best p-value(s): 0.0029 0.1094

X15 value(s): 2350 2440 2450 2490 2530 2545 2575 2620 2710 2785 2850
DV counts: 11 0 0

X15 value(s): 2880 2890 2970 2985 3080 3195 3960
DV counts: 1 0 6 Best p-value(s): 0.3208 0.4945

X4 value(s): 128 130 134 135 138 140
DV counts: 3 0 9 Best p-value(s): 0.1094 0.3636

X4 value(s):
141 142 145 147 150 151 153 155 160 164 165 168 170 172 178 180 185 190
DV counts: 0 0 30

X4 value(s): 200 202 208 210 214
DV counts: 0 4 3 Best p-value(s): 0.3200 0.6592

X4 value(s): 217 225 255 278 295 300
DV counts: 0 7 0

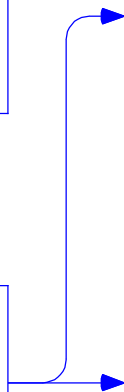
```
SPL:CLUSTER  
VAL:1 2 3  
COU:33 11 48  
PVA:0.0001 0.0001  
1
```

```
SPL:X4  
VAL:55 63 70 73  
COU:18 0 0  
PVA:  
2
```

```
SPL:X4  
VAL:200 202 208  
COU:0 4 3  
PVA:0.3200 0.6592  
6
```

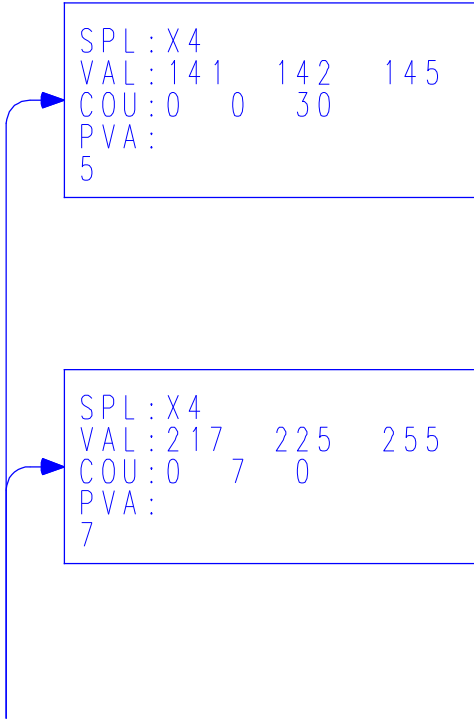
```
SPL:X4  
VAL:128 130 134  
COU:3 0 9  
PVA:0.1094 0.3636  
4
```

```
SPL:X4  
VAL:100 102 103  
COU:12 0 6  
PVA:0.0029 0.1094  
3
```



```
SPL : X15  
VAL : 2880 2890 29  
COU : 1 0 6  
PVA : 0.3208 0.4945  
9
```

```
SPL : X15  
VAL : 2350 2440 24  
COU : 11 0 0  
PVA :  
8
```



```
SPL: X4  
VAL: 141 142 145  
COU: 0 0 30  
PVA:  
5
```

```
SPL: X4  
VAL: 217 225 255  
COU: 0 7 0  
PVA:  
7
```

```
*** DISCTREE Decision Tree Code ***;
* DV counts: 33 11 48 ;
node_ = 1;
into_ = 3;
tie_ = 0;
post_ = 0.5217391304;
if -1e38 <= X4 <= 98 then do;
  * DV counts: 18 0 0 ;
  node_ = 2;
  into_ = 1;
  tie_ = 0;
  post_ = 1;
end;
else
if 98 <= X4 <= 127.5 then do;
  * DV counts: 12 0 6 ;
  node_ = 3;
  into_ = 1;
  tie_ = 0;
  post_ = 0.6666666667;
  if -1e38 <= X15 <= 2865 then do;
    * DV counts: 11 0 0 ;
    node_ = 8;
    into_ = 1;
    tie_ = 0;
    post_ = 1;
  end;
  else
  if 2865 <= X15 then do;
    * DV counts: 1 0 6 ;
    node_ = 9;
    into_ = 3;
    tie_ = 0;
    post_ = 0.8571428571;
  end;
end;
else
if 127.5 <= X4 <= 140.5 then do;
  * DV counts: 3 0 9 ;
  node_ = 4;
  into_ = 3;
  tie_ = 0;
  post_ = 0.75;
end;
else
if 140.5 <= X4 <= 195 then do;
  * DV counts: 0 0 30 ;
  node_ = 5;
  into_ = 3;
  tie_ = 0;
  post_ = 1;
end;
else
```

```
if 195 <= X4 <= 215.5 then do;
  * DV counts: 0 4 3 ;
  node_ = 6;
  into_ = 2;
  tie_ = 0;
  post_ = 0.5714285714;
end;
else
if 215.5 <= X4 then do;
  * DV counts: 0 7 0 ;
  node_ = 7;
  into_ = 2;
  tie_ = 0;
  post_ = 1;
end;
end;
```

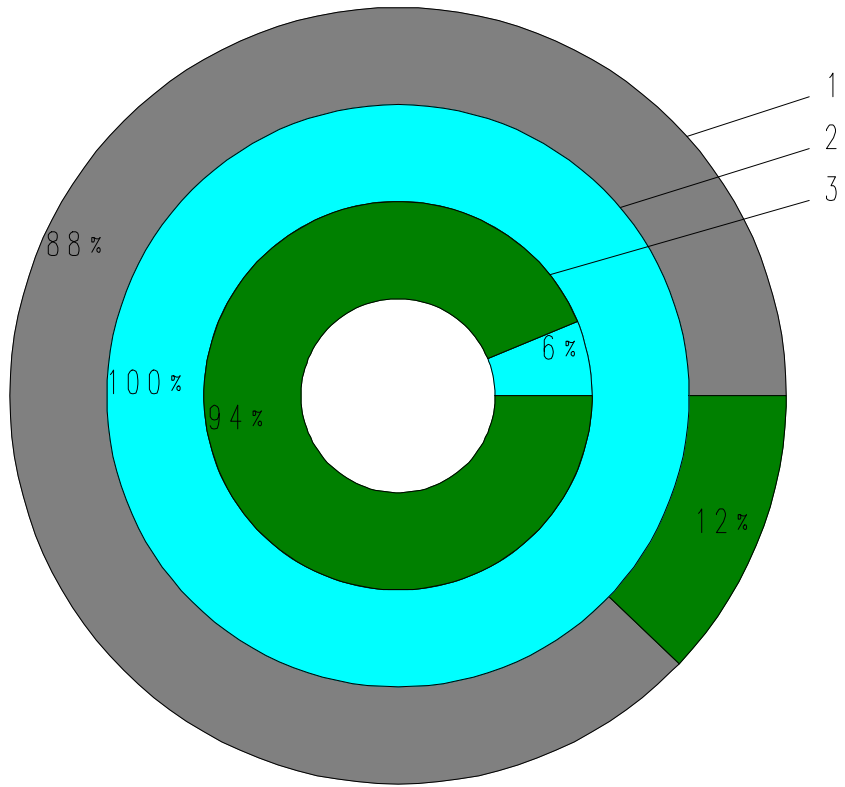
Cross-tabulate actual group with the predicted group (_INTO_)

The FREQ Procedure

**Frequency
Percent**

Table of CLUSTER by INTO_				
CLUSTER(Cluster)	INTO_			Total
	1	2	3	
1	29 31.52	0 0.00	4 4.35	33 35.87
2	0 0.00	11 11.96	0 0.00	11 11.96
3	0 0.00	3 3.26	45 48.91	48 52.17
Total	29 31.52	14 15.22	49 53.26	92 100.00

Classification results: CARS93



INTO_ ■ 1 ■ 2 ■ 3