Sep 03, 07 4:49 **x4_3.sas** Page 1/1

```
/* x4_3.sas */
/* Purpose:  */

title1 'Example 4.3.';

data gloed;
input aar ndefekt ntotal;
antal=ndefekt;
defekt=0;
output;
antal=ntotal-ndefekt;
defekt=1;
output;
cards;
63 14 52
53 11 34
43 10 53
33 13 47
23  4 56
13  4 46
3   0  7
;

proc print;
title2 'List of data.';

proc catmod;
weight antal;
direct aar;
model defekt=aar / freq ml nogls covb corrb;
title2 'Analysis of logistisc model using proc catmod.';

run;
```

Example 4.3.
List of data. 1

Obs	aar	ndefekt	ntotal	antal	defekt
1	63	14	52	14	0
2	63	14	52	38	1
3	53	11	34	11	0
4	53	11	34	23	1
5	43	10	53	10	0
6	43	10	53	43	1
7	33	13	47	13	0
8	33	13	47	34	1
9	23	4	56	4	0
10	23	4	56	52	1
11	13	4	46	4	0
12	13	4	46	42	1
13	3	0	7	0	0
14	3	0	7	7	1

Example 4.3.
Analysis of logistisc model using proc catmod. 2

The CATMOD Procedure

Data Summary

Response	defekt	Response Levels	2
Weight Variable	antal	Populations	7
Data Set	GLOED	Total Frequency	295
Frequency Missing	0	Observations	13

Population Profiles

Sample	aar	Sample Size
1	3	7
2	13	46
3	23	56
4	33	47
5	43	53
6	53	34
7	63	52

Response Profiles

Response	defekt
1	0
2	1

Response Frequencies

	Response Number	
Sample	1	2
1	0	7
2	4	42
3	4	52
4	13	34
5	10	43
6	11	23
7	14	38

Maximum Likelihood Analysis

Maximum likelihood computations converged.

Maximum Likelihood Analysis of Variance

Source	DF	Chi-Square	Pr > ChiSq
Intercept	1	42.48	<.0001
aar	1	11.62	0.0007
Likelihood Ratio	5	8.20	0.1456

```
                              Example 4.3.                                 3
                 Analysis of logistisc model using proc catmod.

                            The CATMOD Procedure

                  Analysis of Maximum Likelihood Estimates

                                 Standard        Chi-
           Parameter    Estimate      Error      Square    Pr > ChiSq
           ----------------------------------------------------------
           Intercept     -2.6547     0.4073       42.48        <.0001
           aar            0.0304    0.00893       11.62        0.0007


            Covariance Matrix of the Maximum Likelihood Estimates

             Row      Parameter             Col1             Col2
             --------------------------------------------------
               1      Intercept       0.16588194      -.00337457
               2      aar             -.00337457      0.00007971


            Correlation Matrix of the Maximum Likelihood Estimates

             Row      Parameter             Col1             Col2
             --------------------------------------------------
               1      Intercept          1.00000         -0.92805
               2      aar               -0.92805          1.00000
```