

Obs	A	B	C	D	E	F	G	H	J	strength
1	-1	-1	-1	-1	-1	-1	1	-1	1	40.2
2	1	-1	-1	-1	1	1	-1	-1	-1	43.7
3	-1	1	-1	-1	-1	-1	1	1	-1	44.7
4	1	1	-1	-1	1	1	-1	1	1	42.4
5	-1	-1	1	-1	1	-1	-1	1	-1	45.9
6	1	-1	1	-1	-1	1	1	1	1	42.4
7	-1	1	1	-1	1	-1	-1	-1	1	40.6
8	1	1	1	-1	-1	1	1	-1	-1	42.2
9	-1	-1	-1	1	-1	1	-1	1	-1	45.5
10	1	-1	-1	1	1	-1	1	1	1	42.4
11	-1	1	-1	1	-1	1	-1	-1	1	40.6
12	1	1	-1	1	1	-1	1	-1	-1	43.6
13	-1	-1	1	1	1	1	1	-1	1	40.2
14	1	-1	1	1	-1	-1	-1	-1	-1	44.0
15	-1	1	1	1	1	1	1	1	-1	46.5
16	1	1	1	1	-1	-1	-1	1	1	42.5

The GLM Procedure

Class Level Information		
Class	Levels	Values
A	2	-1 1
B	2	-1 1
C	2	-1 1
D	2	-1 1

Number of Observations Read	16
Number of Observations Used	16

The GLM Procedure

Dependent Variable: strength

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	15	60.79750000	4.05316667	.	.
Error	0	0.00000000	.	.	.
Corrected Total	15	60.79750000	.	.	.

R-Square	Coeff Var	Root MSE	strength Mean
1.000000	.	.	42.96250

Source	DF	Type I SS	Mean Square	F Value	Pr > F
A	1	0.06250000	0.06250000	.	.
B	1	0.09000000	0.09000000	.	.
A*B	1	0.36000000	0.36000000	.	.
C	1	0.09000000	0.09000000	.	.
A*C	1	0.64000000	0.64000000	.	.
B*C	1	0.00250000	0.00250000	.	.
A*B*C	1	0.56250000	0.56250000	.	.
D	1	0.64000000	0.64000000	.	.
A*D	1	0.01000000	0.01000000	.	.
B*D	1	0.72250000	0.72250000	.	.
A*B*D	1	0.06250000	0.06250000	.	.
C*D	1	0.06250000	0.06250000	.	.
A*C*D	1	0.56250000	0.56250000	.	.
B*C*D	1	18.49000000	18.49000000	.	.
A*B*C*D	1	38.44000000	38.44000000	.	.

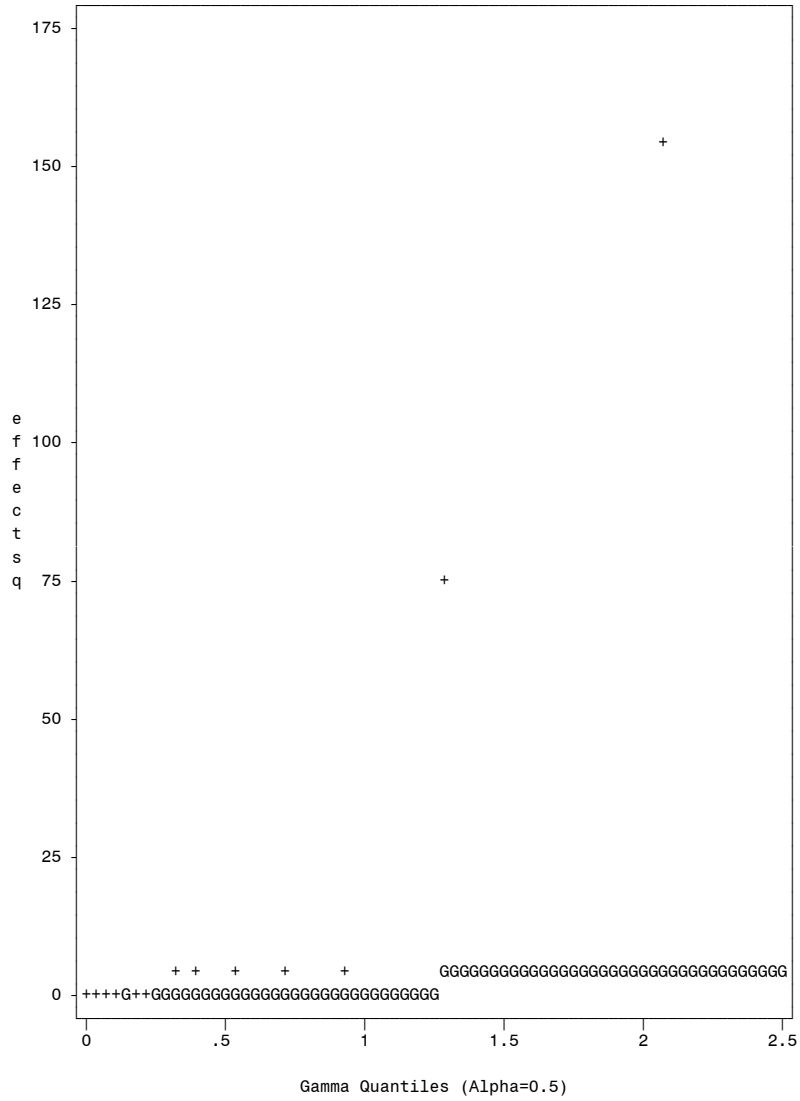
Source	DF	Type III SS	Mean Square	F Value	Pr > F
A	1	0.06250000	0.06250000	.	.
B	1	0.09000000	0.09000000	.	.
A*B	1	0.36000000	0.36000000	.	.
C	1	0.09000000	0.09000000	.	.
A*C	1	0.64000000	0.64000000	.	.
B*C	1	0.00250000	0.00250000	.	.
A*B*C	1	0.56250000	0.56250000	.	.
D	1	0.64000000	0.64000000	.	.
A*D	1	0.01000000	0.01000000	.	.
B*D	1	0.72250000	0.72250000	.	.

The GLM Procedure

Dependent Variable: strength

Source	DF	Type III SS	Mean Square	F Value	Pr > F
A*B*D	1	0.06250000	0.06250000	.	.
C*D	1	0.06250000	0.06250000	.	.
A*C*D	1	0.56250000	0.56250000	.	.
B*C*D	1	18.49000000	18.49000000	.	.
A*B*C*D	1	38.44000000	38.44000000	.	.

Obs	SS	effectsq	effectname
1	0.0025	0.01	B*C
2	0.0100	0.04	A*D
3	0.0625	0.25	A*B*D
4	0.0625	0.25	C*D
5	0.0625	0.25	A
6	0.0900	0.36	B
7	0.0900	0.36	C
8	0.3600	1.44	A*B
9	0.5625	2.25	A*B*C
10	0.5625	2.25	A*C*D
11	0.6400	2.56	A*C
12	0.6400	2.56	D
13	0.7225	2.89	B*D
14	18.4900	73.96	B*C*D
15	38.4400	153.76	A*B*C*D



Gamma Line: GGG Threshold=0, Scale=2
Observations: + (2 Hidden)

The GLM Procedure

Class Level Information		
Class	Levels	Values
A	2	-1 1
B	2	-1 1
C	2	-1 1
D	2	-1 1
E	2	-1 1
F	2	-1 1
G	2	-1 1
H	2	-1 1
J	2	-1 1

Number of Observations Read	16
Number of Observations Used	16

The GLM Procedure

Dependent Variable: strength

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	9	59.02500000	6.558333333	22.20	0.0006
Error	6	1.77250000	0.29541667		
Corrected Total	15	60.79750000			

R-Square	Coeff Var	Root MSE	strength Mean
0.970846	1.265109	0.543522	42.96250

Source	DF	Type I SS	Mean Square	F Value	Pr > F
A	1	0.06250000	0.06250000	0.21	0.6617
B	1	0.09000000	0.09000000	0.30	0.6009
C	1	0.09000000	0.09000000	0.30	0.6009
D	1	0.64000000	0.64000000	2.17	0.1915
E	1	0.64000000	0.64000000	2.17	0.1915
F	1	0.01000000	0.01000000	0.03	0.8601
G	1	0.56250000	0.56250000	1.90	0.2168
H	1	18.49000000	18.49000000	62.59	0.0002
J	1	38.44000000	38.44000000	130.12	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
A	1	0.06250000	0.06250000	0.21	0.6617
B	1	0.09000000	0.09000000	0.30	0.6009
C	1	0.09000000	0.09000000	0.30	0.6009
D	1	0.64000000	0.64000000	2.17	0.1915
E	1	0.64000000	0.64000000	2.17	0.1915
F	1	0.01000000	0.01000000	0.03	0.8601
G	1	0.56250000	0.56250000	1.90	0.2168
H	1	18.49000000	18.49000000	62.59	0.0002
J	1	38.44000000	38.44000000	130.12	<.0001

The GLM Procedure

Class Level Information		
Class	Levels	Values
A	2	-1 1
B	2	-1 1
C	2	-1 1
D	2	-1 1
E	2	-1 1
F	2	-1 1
G	2	-1 1
H	2	-1 1
J	2	-1 1

Number of Observations Read	16
Number of Observations Used	16

The GLM Procedure

Dependent Variable: strength

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	56.99250000	18.99750000	59.91	<.0001
Error	12	3.80500000	0.31708333		
Corrected Total	15	60.79750000			

R-Square	Coeff Var	Root MSE	strength Mean
0.937415	1.310681	0.563102	42.96250

Source	DF	Type I SS	Mean Square	F Value	Pr > F
H	1	18.49000000	18.49000000	58.31	<.0001
J	1	38.44000000	38.44000000	121.23	<.0001
H*J	1	0.06250000	0.06250000	0.20	0.6650

Source	DF	Type III SS	Mean Square	F Value	Pr > F
H	1	18.49000000	18.49000000	58.31	<.0001
J	1	38.44000000	38.44000000	121.23	<.0001
H*J	1	0.06250000	0.06250000	0.20	0.6650

Dependent Variable: strength

