

```

* Encoding: windows-1252.
cd "g:\projects\pspp\glm-experiments" .

* analysis 0 .

set format = F20.3.
data list file=glm.data notable fixed /a 1 b 3 c 5 y 7-10(2).

list.

```

List

Notes

Output Created	20-JUN-2016 17:04:32		
Comments			
Input	Filter	<none>	
	Weight	<none>	
	Split File	<none>	
	N of Rows in Working Data File	36	
Syntax	list.		
Resources	Processor Time	00:00:00.00	
	Elapsed Time	00:00:00.00	

```

a b c      y
1 1 6    3.50
1 2 2    8.90
1 3 3    9.60
1 4 4   10.50
1 5 5    3.10
1 6 1    5.90
2 1 2    4.20
2 2 6    1.90
2 3 5    3.70
2 4 3   10.20
2 5 1    7.20
2 6 4    7.60
3 1 1    6.70
3 2 4    5.80

```

```
3 3 6 -2.70
3 4 2 4.60
3 5 3 4.00
3 6 5 -.70
4 1 4 6.60
4 2 1 4.50
4 3 2 3.70
4 4 5 3.70
4 5 6 -3.30
4 6 3 3.00
5 1 3 4.10
5 2 5 2.40
5 3 4 6.00
5 4 1 5.10
5 5 2 3.50
5 6 6 4.00
6 1 5 3.80
6 2 3 5.80
6 3 1 7.00
6 4 6 3.80
6 5 4 5.00
6 6 2 8.60
```

Number of cases read: 36 Number of cases listed: 36

```
glm y by    b a c
/criteria=alpha(.05)
/design = a b c
.
```

General Linear Model

Notes

Output Created		20-JUN-2016 17:04:32
Comments		
Input	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	36
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the model.
Syntax		glm y by b a c /criteria=alpha(.05) /design = a b c
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.01

Between-Subjects Factors

		N
b	1	6
	2	6
	3	6
	4	6
	5	6
	6	6
a	1	6
	2	6
	3	6
	4	6
	5	6
	6	6
c	1	6
	2	6
	3	6
	4	6
	5	6
	6	6

Tests of Between-Subjects Effects

Dependent Variable: y

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	263.064 ^a	15	17.538	5.269	.000
Intercept	815.103	1	815.103	244.910	.000
a	78.869	5	15.774	4.739	.005
b	28.599	5	5.720	1.719	.176
c	155.596	5	31.119	9.350	.000
Error	66.563	20	3.328		
Total	1144.730	36			
Corrected Total	329.628	35			

a. R Squared = .798 (Adjusted R Squared = .647)

```
* Encoding: windows-1252.
cd "g:\projects\pspp\glm-experiments" .

* analysis 1.

set format = F20.3.
data list file='glm.data' notable fixed /a 1 b 3 c 5 y 7-10(2).

do if a=6.
recode y (else=SYSMIS).
end if.

list.
```

List

Notes

Output Created	20-JUN-2016 17:04:48		
Comments			
Input	Filter	<none>	
	Weight	<none>	
	Split File	<none>	
	N of Rows in Working Data File		36
Syntax		list.	
Resources	Processor Time		00:00:00.00
	Elapsed Time		00:00:00.01

a	b	c	y
1	1	6	3.50
1	2	2	8.90
1	3	3	9.60
1	4	4	10.50
1	5	5	3.10
1	6	1	5.90
2	1	2	4.20
2	2	6	1.90
2	3	5	3.70
2	4	3	10.20
2	5	1	7.20
2	6	4	7.60
3	1	1	6.70
3	2	4	5.80
3	3	6	-2.70
3	4	2	4.60
3	5	3	4.00
3	6	5	-.70
4	1	4	6.60
4	2	1	4.50
4	3	2	3.70
4	4	5	3.70
4	5	6	-3.30
4	6	3	3.00
5	1	3	4.10
5	2	5	2.40
5	3	4	6.00
5	4	1	5.10
5	5	2	3.50
5	6	6	4.00
6	1	5	.
6	2	3	.
6	3	1	.
6	4	6	.
6	5	4	.
6	6	2	.

Number of cases read: 36 Number of cases listed: 36

```
glm y by b a c
/criteria=alpha(.05)
/design = a b c
.
```

General Linear Model

Notes

Output Created		20-JUN-2016 17:04:48
Comments		
Input	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	36
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the model.
Syntax		glm y by b a c /criteria=alpha(.05) /design = a b c .
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.11

**Between-Subjects
Factors**

		N
b	1	5
	2	5
	3	5
	4	5
	5	5
	6	5
a	1	6
	2	6
	3	6
	4	6
	5	6
	6	6
c	1	5
	2	5
	3	5
	4	5
	5	5
	6	5

Tests of Between-Subjects Effects

Dependent Variable: y

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	251.621 ^a	14	17.973	4.969	.002
Intercept	628.376	1	628.376	173.737	.000
a	72.929	4	18.232	5.041	.009
b	20.703	5	4.141	1.145	.380
c	135.179	5	27.036	7.475	.001
Error	54.253	15	3.617		
Total	934.250	30			
Corrected Total	305.874	29			

a. R Squared = .823 (Adjusted R Squared = .657)

cd "g:\projects\pspp\glm-experiments" .

* analysis 1-1.

```

set format = F20.3.
data list file='glm.data' notable fixed /a 1 b 3 c 5 y 7-10(2).

select if a <> 6.

list.

```

List

Notes

Output Created	20-JUN-2016 17:05:01		
Comments			
Input	Filter	<none>	
	Weight	<none>	
	Split File	<none>	
	N of Rows in Working Data File	30	
Syntax	list.		
Resources	Processor Time	00:00:00.00	
	Elapsed Time	00:00:00.00	

a	b	c	y
1	1	6	3.50
1	2	2	8.90
1	3	3	9.60
1	4	4	10.50
1	5	5	3.10
1	6	1	5.90
2	1	2	4.20
2	2	6	1.90
2	3	5	3.70
2	4	3	10.20
2	5	1	7.20
2	6	4	7.60
3	1	1	6.70
3	2	4	5.80
3	3	6	-2.70
3	4	2	4.60
3	5	3	4.00
3	6	5	-.70
4	1	4	6.60
4	2	1	4.50
4	3	2	3.70
4	4	5	3.70
4	5	6	-3.30
4	6	3	3.00
5	1	3	4.10
5	2	5	2.40
5	3	4	6.00
5	4	1	5.10
5	5	2	3.50
5	6	6	4.00

Number of cases read: 30 Number of cases listed: 30

```

glm y by b a c
/criteria=alpha(.05)
/design = a b c
.

```

General Linear Model

Notes

Output Created		20-JUN-2016 17:05:01
Comments		
Input	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	30
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the model.
Syntax		glm y by b a c /criteria=alpha(.05) /design = a b c .
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.01

**Between-Subjects
Factors**

		N
b	1	5
	2	5
	3	5
	4	5
	5	5
	6	5
a	1	6
	2	6
	3	6
	4	6
	5	6
c	1	5
	2	5
	3	5
	4	5
	5	5
	6	5

Tests of Between-Subjects Effects

Dependent Variable: y

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	251.621 ^a	14	17.973	4.969	.002
Intercept	628.376	1	628.376	173.737	.000
a	72.929	4	18.232	5.041	.009
b	20.703	5	4.141	1.145	.380
c	135.179	5	27.036	7.475	.001
Error	54.253	15	3.617		
Total	934.250	30			
Corrected Total	305.874	29			

a. R Squared = .823 (Adjusted R Squared = .657)

cd "g:\projects\pspp\glm-experiments" .

* analysis 2 .

```
set format = F20.3.  
data list file=glm.data notable fixed /a 1 b 3 c 5 y 7-10(2).
```

```
do if a=6.  
recode b (else=SYSMIS).  
end do.
```

```
>Warning # 142. Command name: end  
>LOOP has no effect on this command.
```

```
>Error # 1. Command name: end  
>The first word in the line is not recognized as an SPSS Statistics command.  
>Execution of this command stops.
```

```
list.
```

```
>Warning # 142. Command name: list  
>LOOP has no effect on this command.
```

```
>Error # 4095. Command name: list  
>The transformations program contains an unclosed LOOP, DO IF, or complex file  
>structure. Use the level-of-control shown to the left of the SPSS Statistics  
>commands to determine the range of LOOPS and DO IFs.  
>Execution of this command stops.
```

```
glm y by b a c
```

```
>Warning # 142. Command name: glm  
>LOOP has no effect on this command.
```

```
>Error # 4095. Command name: glm  
>The transformations program contains an unclosed LOOP, DO IF, or complex file  
>structure. Use the level-of-control shown to the left of the SPSS Statistics  
>commands to determine the range of LOOPS and DO IFs.  
>Execution of this command stops.
```

```
  /criteria=alpha(.05)
```

```
  /design = a b c
```

```
  .  
cd "g:\projects\pspp\glm-experiments" .
```

```
>Warning # 142. Command name: cd  
>LOOP has no effect on this command.
```

```
* analysis 2 .
```

```
set format = F20.3.
```

```
>Warning # 142. Command name: set
```

```
>LOOP has no effect on this command.
```

```
data list file=glm.data notable fixed /a 1 b 3 c 5 y 7-10(2).
```

```
do if a=6.
```

```
recode b (else=SYSMIS).
```

```
end if.
```

```
list.
```

List

Notes

Output Created	20-JUN-2016 17:05:26		
Comments			
Input	Filter	<none>	
	Weight	<none>	
	Split File	<none>	
	N of Rows in Working Data	36	
	File		
Syntax	list.		
Resources	Processor Time	00:00:00.02	
	Elapsed Time	00:00:00.01	

a	b	c	y
1	1	6	3.50
1	2	2	8.90
1	3	3	9.60
1	4	4	10.50
1	5	5	3.10
1	6	1	5.90
2	1	2	4.20
2	2	6	1.90
2	3	5	3.70
2	4	3	10.20
2	5	1	7.20
2	6	4	7.60
3	1	1	6.70
3	2	4	5.80
3	3	6	-2.70
3	4	2	4.60
3	5	3	4.00
3	6	5	-.70
4	1	4	6.60
4	2	1	4.50
4	3	2	3.70
4	4	5	3.70
4	5	6	-3.30
4	6	3	3.00
5	1	3	4.10
5	2	5	2.40
5	3	4	6.00
5	4	1	5.10
5	5	2	3.50
5	6	6	4.00
6	.	5	3.80
6	.	3	5.80
6	.	1	7.00
6	.	6	3.80
6	.	4	5.00
6	.	2	8.60

Number of cases read: 36 Number of cases listed: 36

```
glm y by b a c
/criteria=alpha(.05)
/design = a b c
.
```

General Linear Model

Notes

Output Created		20-JUN-2016 17:05:26
Comments		
Input	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	36
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the model.
Syntax		glm y by b a c /criteria=alpha(.05) /design = a b c .
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.01

**Between-Subjects
Factors**

		N
b	1	5
	2	5
	3	5
	4	5
	5	5
	6	5
a	1	6
	2	6
	3	6
	4	6
	5	6
c	1	5
	2	5
	3	5
	4	5
	5	5
	6	5

Tests of Between-Subjects Effects

Dependent Variable: y

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	251.621 ^a	14	17.973	4.969	.002
Intercept	628.376	1	628.376	173.737	.000
a	72.929	4	18.232	5.041	.009
b	20.703	5	4.141	1.145	.380
c	135.179	5	27.036	7.475	.001
Error	54.253	15	3.617		
Total	934.250	30			
Corrected Total	305.874	29			

a. R Squared = .823 (Adjusted R Squared = .657)

cd "g:\projects\pspp\glm-experiments" .

* analysis 3 .

```

set format = F20.3.
data list file=glm.data notable fixed /a 1 b 3 c 5 y 7-10(2).

do if a=6.
recode a (else=SYSMIS).
end if.

list.

```

List

Notes

Output Created	20-JUN-2016 17:05:52		
Comments			
Input	Filter	<none>	
	Weight	<none>	
	Split File	<none>	
	N of Rows in Working Data File	36	
Syntax		list.	
Resources	Processor Time	00:00:00.00	
	Elapsed Time	00:00:00.00	

a	b	c	y
1	1	6	3.50
1	2	2	8.90
1	3	3	9.60
1	4	4	10.50
1	5	5	3.10
1	6	1	5.90
2	1	2	4.20
2	2	6	1.90
2	3	5	3.70
2	4	3	10.20
2	5	1	7.20
2	6	4	7.60
3	1	1	6.70
3	2	4	5.80
3	3	6	-2.70
3	4	2	4.60
3	5	3	4.00
3	6	5	-.70
4	1	4	6.60
4	2	1	4.50
4	3	2	3.70
4	4	5	3.70
4	5	6	-3.30
4	6	3	3.00
5	1	3	4.10
5	2	5	2.40
5	3	4	6.00
5	4	1	5.10
5	5	2	3.50
5	6	6	4.00
.	1	5	3.80
.	2	3	5.80
.	3	1	7.00
.	4	6	3.80
.	5	4	5.00
.	6	2	8.60

Number of cases read: 36 Number of cases listed: 36

```
glm y by b a c
/criteria=alpha(.05)
/design = a b c
.
```

General Linear Model

Notes

Output Created		20-JUN-2016 17:05:52
Comments		
Input	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	36
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the model.
Syntax		glm y by b a c /criteria=alpha(.05) /design = a b c .
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.01

**Between-Subjects
Factors**

		N
b	1	5
	2	5
	3	5
	4	5
	5	5
	6	5
a	1	6
	2	6
	3	6
	4	6
	5	6
	6	6
c	1	5
	2	5
	3	5
	4	5
	5	5
	6	5

Tests of Between-Subjects Effects

Dependent Variable: y

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	251.621 ^a	14	17.973	4.969	.002
Intercept	628.376	1	628.376	173.737	.000
a	72.929	4	18.232	5.041	.009
b	20.703	5	4.141	1.145	.380
c	135.179	5	27.036	7.475	.001
Error	54.253	15	3.617		
Total	934.250	30			
Corrected Total	305.874	29			

a. R Squared = .823 (Adjusted R Squared = .657)