

```

options nodate nonumber nocenter;
data one;
    input design store casessold @@;
cards;
1 1 11 1 2 17 1 3 16 1 4 14 1 5 15
2 1 12 2 2 10 2 3 15 2 4 19 2 5 11
3 1 23 3 2 20 3 3 18 3 4 17
4 1 27 4 2 33 4 3 22 4 4 26 4 5 28
run;
proc glm data=one;
    class design;
    model casessold=design;
    lsmeans design/stderr cl tdiff pdiff alpha=0.05 adjust=bon;
    lsmeans design/stderr cl tdiff pdiff alpha=0.05 adjust=tukey;
    lsmeans design/stderr cl tdiff pdiff alpha=0.05 adjust=scheffe;
run;

```

		sum of			
Source	DF	Squares	Mean Square	F Value	Pr > F
Model	3	588.2210526	196.0736842	18.59	<.0001
Error	15	158.2000000	10.5466667		
Corrected Total	18	746.4210526			
R-Square	Coeff Var	Root MSE	casessold Mean		
0.788055	17.43042	3.247563	18.63158		

Source	DF	Type I SS	Mean Square	F Value	Pr > F
design	3	588.2210526	196.0736842	18.59	<.0001

  

Source	DF	Type III SS	Mean Square	F Value	Pr > F
design	3	588.2210526	196.0736842	18.59	<.0001

## Least Squares Means

Adjustment for Multiple Comparisons: Bonferroni

design	casessold LSMEAN	Standard Error	Pr >  t	LSMEAN Number
1	14.6000000	1.4523544	<.0001	1
2	13.4000000	1.4523544	<.0001	2
3	19.5000000	1.6237816	<.0001	3
4	27.2000000	1.4523544	<.0001	4

Least Squares Means for Effect design  
t for H0: LSMean(i)=LSMean(j) / Pr > |t|

Dependent variable: casessold				
i/j	1	2	3	4
1		0.584243 1.0000	-2.24922 0.2397	-6.13455 0.0001
2	-0.58424 1.0000		-2.80005 0.0808	-6.7188 <.0001
3	2.249221 0.2397	2.800051 0.0808		-3.53449 0.0180
4	6.134553 0.0001	6.718796 <.0001	3.534491 0.0180	

design	casessold LSMEAN	95% Confidence Limits	
1	14.600000	11.504380	17.695620
2	13.400000	10.304380	16.495620
3	19.500000	16.038991	22.961009
4	27.200000	24.104380	30.295620

Least Squares Means for Effect design

i		Difference Between j	Simultaneous 95% Confidence Limits for Means LSMean(i)-LSMean(j)	
1	2	1.200000	-5.036341	7.436341
1	3	-4.900000	-11.514639	1.714639
1	4	-12.600000	-18.836341	-6.363659
2	3	-6.100000	-12.714639	0.514639
2	4	-13.800000	-20.036341	-7.563659
3	4	-7.700000	-14.314639	-1.085361

## Least Squares Means

Adjustment for Multiple Comparisons: Tukey-Kramer

design	casessold LSMEAN	Standard Error	Pr >  t	LSMEAN Number
1	14.6000000	1.4523544	<.0001	1
2	13.4000000	1.4523544	<.0001	2
3	19.5000000	1.6237816	<.0001	3
4	27.2000000	1.4523544	<.0001	4

Least Squares Means for Effect design  
t for H0: LSMean(i)=LSMean(j) / Pr > |t|

Dependent variable: casessold				
i/j	1	2	3	4
1		0.584243 0.9353	-2.24922 0.1549	-6.13455 0.0001
2	-0.58424 0.9353		-2.80005 0.0583	-6.7188 <.0001
3	2.249221 0.1549	2.800051 0.0583		-3.53449 0.0142
4	6.134553 0.0001	6.718796 <.0001	3.534491 0.0142	

design	casessold LSMEAN	95% Confidence Limits	
1	14.600000	11.504380	17.695620
2	13.400000	10.304380	16.495620
3	19.500000	16.038991	22.961009
4	27.200000	24.104380	30.295620

Least Squares Means for Effect design

i		Difference Between j	Simultaneous 95% Confidence Limits for Means LSMean(i)-LSMean(j)	
1	2	1.200000	-4.719615	7.119615
1	3	-4.900000	-11.178700	1.378700
1	4	-12.600000	-18.519615	-6.680385
2	3	-6.100000	-12.378700	0.178700
2	4	-13.800000	-19.719615	-7.880385
3	4	-7.700000	-13.978700	-1.421300

Adjustment for Multiple Comparisons: Scheffe

design	casessold LSMEAN	Standard Error	Pr >  t	LSMEAN Number
1	14.6000000	1.4523544	<.0001	1
2	13.4000000	1.4523544	<.0001	2
3	19.5000000	1.6237816	<.0001	3
4	27.2000000	1.4523544	<.0001	4

Least Squares Means for Effect design

t for H0: LSmean(i)=LSmean(j) / Pr &gt; |t|

Dependent Variable: casessold

i/j	1	2	3	4
1		0.584243	-2.24922	-6.13455
		0.9507	0.2125	0.0002
2	-0.58424		-2.80005	-6.7188
	0.9507		0.0895	<.0001
3	2.249221	2.800051		-3.53449
	0.2125	0.0895		0.0248
4	6.134553	6.718796	3.534491	
	0.0002	<.0001	0.0248	

design	casessold LSMEAN	95% Confidence Limits	
1	14.600000	11.504380	17.695620
2	13.400000	10.304380	16.495620
3	19.500000	16.038991	22.961009
4	27.200000	24.104380	30.295620

Least Squares Means for Effect design

		Difference Between j	Simultaneous 95% Confidence Limits for Means LSmean(i)-LSmean(j)	
i				
1	2	1.200000	-5.250202	7.650202
1	3	-4.900000	-11.741473	1.941473
1	4	-12.600000	-19.050202	-6.149798
2	3	-6.100000	-12.941473	0.741473
2	4	-13.800000	-20.250202	-7.349798