```
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 means data=one;
      class design;
      var casessold;
run;
proc glm data=one;
      class design;
      model casessold=design;
      estimate '4 vs. Others' design -1 -1 -1 3/divisor=3;
      estimate '1+2 vs. 3+4' design -1 -1 1 1/divisor=2;
      lsmeans design/stderr cl tdiff pdiff alpha=0.05;
run;
```

The MEANS Procedure

Analysis Variable : casessold

design	N Obs	N	Mean	Std Dev	Minimum	Maximum
1	5	5	14.6000000	2.3021729	11.0000000	17.0000000
2	5	5	13.4000000	3.6469165	10.0000000	19.0000000
3	4	4	19.5000000	2.6457513	17.0000000	23.0000000
4	5	5	27.2000000	3.9623226	22.0000000	33.0000000

The GLM Procedure

Class Level Information

Class	Levels	Values
design	4	1 2 3 4

Number of Observations Read 19
Number of Observations Used 19

Dependent Variable: casessold

Source	DF	Sum of 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

Parameter	Estimate	Standard Error	t Value	Pr > |t|
4 vs. Others	11.3666667	1.69441348	6.71	<.0001
1+2 vs. 3+4	9.3500000	1.49705266	6.25	<.0001

Least Squares Means

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	-2.24922	-6.13455
		0.5677	0.0399	<.0001
2	-0.58424		-2.80005	-6.7188
	0.5677		0.0135	<.0001
3	2.249221	2.800051		-3.53449
	0.0399	0.0135		0.0030
4	6.134553	6.718796	3.534491	
	<.0001	<.0001	0.0030	

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	j	Difference Between Means	95% Confidence Limits for LSMean(i)-LSMean(j)	
1	2	1.200000	-3.177868	5.577868
1	3	-4.900000	-9.543430	-0.256570
1	4	-12.600000	-16.977868	-8.222132
2	3	-6.100000	-10.743430	-1.456570
2	4	-13.800000	-18.177868	-9.422132
3	4	-7.700000	-12.343430	-3.056570

NOTE: To ensure overall protection level, only probabilities associated with pre-planned comparisons should be used.