The rm3 data

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The data:

```
a 10 10 11 13
a 11 9 12 14
a 10 11 12 12
b 11 10 15 15
b 10 12 14 14
b 12 13 13 15
```

The SAS code and output:

```
options linesize=75;

data rm;
  infile "rm3.dat";
  input trt $ y1 y2 y3 y4;

proc glm;
  class trt;
  model y1 y2 y3 y4 = trt / nouni;
  repeated time;
```

```
The GLM Procedure
   Class Level Information
Class         Levels    Values
trt                2    a b

Number of Observations Read           6
Number of Observations Used           6

The GLM Procedure
Repeated Measures Analysis of Variance
           Repeated Measures Level Information
Dependent Variable          y1       y2       y3       y4
```

Level of time	1	2	3	4

MANOVA Test Criteria and Exact F Statistics
for the Hypothesis of no time Effect
H = Type III SSCP Matrix for time
E = Error SSCP Matrix
S=1 M=0.5 N=0

Statistic	Value	F Value	Num DF	Den DF	Pr > F
Wilks' Lambda	0.01516477	43.29	3	2	0.0227
Pillai's Trace	0.98483523	43.29	3	2	0.0227
Hotelling-Lawley Trace	64.94230769	43.29	3	2	0.0227
Roy's Greatest Root	64.94230769	43.29	3	2	0.0227

MANOVA Test Criteria and Exact F Statistics
for the Hypothesis of no time*trt Effect
H = Type III SSCP Matrix for time*trt
E = Error SSCP Matrix
S=1 M=0.5 N=0

Statistic	Value	F Value	Num DF	Den DF	Pr > F
Wilks' Lambda	0.31515152	1.45	3	2	0.4332
Pillai's Trace	0.68484848	1.45	3	2	0.4332
Hotelling-Lawley Trace	2.17307692	1.45	3	2	0.4332
Roy's Greatest Root	2.17307692	1.45	3	2	0.4332

The GLM Procedure
Repeated Measures Analysis of Variance
Tests of Hypotheses for Between Subjects Effects

Source	DF	Type III SS	Mean Square	F Value	Pr > F
trt	1	15.04166667	15.04166667	36.10	0.0039
Error	4	1.66666667	0.41666667		

The GLM Procedure
Repeated Measures Analysis of Variance
Univariate Tests of Hypotheses for Within Subject Effects

Source	DF	Type III SS	Mean Square	F Value	Pr > F
time	3	43.12500000	14.37500000	13.27	0.0004
time*trt	3	2.12500000	0.70833333	0.65	0.5958
Error(time)	12	13.00000000	1.08333333		

Source	Adj Pr > F G - G	H-F-L
time	0.0043	0.0004
time*trt	0.5326	0.5958
Error(time)		

Greenhouse-Geisser Epsilon	0.5979
Huynh-Feldt-Lecoutre Epsilon	1.0527