10. APENDICE A

Resultado del Análisis Estadístico

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Obs	ORIGEN	METODO	REP	COOM	Y
1	1	1	1	11	7.8
2	1	1	2	11	10.5
3	1	1	3	11	9.0
4	1	2	1	12	13.2
5	1	2	2	12	13.9
6	1	2	3	12	9.5
7	1	3	1	13	24.2
8	1	3	2	13	27.6
9	1	3	3	13	26.4
10	2	1	1	21	6.0
11	2	1	2	21	3.0
12	2	1	3	21	3.0
13	2	2	1	22	11.1
14	2	2	2	22	10.4
15	2	2	3	22	7.9
16	2	3	1	23	7.1
17	2	3	2	23	25.7
18	2	3	3	23	11.1
19	3	1	1	31	6.3
20	3	1	2	31	5.4
21	3	1	3	31	4.2
22	3	2	1	32	6.9
23	3	2	2	32	13.0
24	3	2	3	32	10.3
25	3	3	1	33	33.3
26	3	3	2	33	2.0
27	3	3	3	33	3.6

PARA FACTORES POR SEPARADO

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The ANOVA Procedure

Class Level Information

Class	Levels	Values
ORIGEN	3	1 2 3
METODO	3	1 2 3

Number of observations 27

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The ANOVA Procedure

Dependent Variable: Y

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	8	989.989630	123.748704	2.57	0.0459
Error	18	866.506667	48.139259		
Corrected Total	26	1856.496296			

R-Square	Coeff Var	Root MSE	Y Mean
0.533257	59.96564	6.938246	11.57037

Source	DF	Anova SS	Mean Square	F Value	Pr > F
ORIGEN	2	240.2496296	120.1248148	2.50	0.1105
METODO	2	632.3585185	316.1792593	6.57	0.0072
ORIGEN*METODO	4	117.3814815	29.3453704	0.61	0.6610

The ANOVA Procedure

Tukey's Studentized Range (HSD) Test for Y

NOTE: This test controls the Type I experimentwise error rate, but it generally has a higher
Type II error rate than REGWQ.

Alpha	0.05
Error Degrees of Freedom	18
Error Mean Square	48.13926
Critical Value of Studentized Range	3.60930
Minimum Significant Difference	8.3474

Means with the same letter are not significantly different.

Tukey Grouping	Mean	N	ORIGEN
A	15.789	9	1
A			
A	9.478	9	2
A			
A	9.444	9	3

The ANOVA Procedure

Tukey's Studentized Range (HSD) Test for Y

NOTE: This test controls the Type I experimentwise error rate, but it generally has a higher
Type II error rate than REGWQ.

Alpha	0.05
Error Degrees of Freedom	18
Error Mean Square	48.13926
Critical Value of Studentized Range	3.60930
Minimum Significant Difference	8.3474

Means with the same letter are not significantly different.

Tukey Grouping	Mean	N	METODO
A	17.889	9	3
A			
B A	10.689	9	2
B			
B	6.133	9	1

PARA COMBINACIONES DE AMBOS FACTORES

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The ANOVA Procedure

Class Level Information

Class	Levels	Values
COOM	9	11 12 13 21 22 23 31 32 33

Number of observations 27

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The ANOVA Procedure

Dependent Variable: Y

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	8	989.989630	123.748704	2.57	0.0459
Error	18	866.506667	48.139259		
Corrected Total	26	1856.496296			

R-Square	Coeff Var	Root MSE	Y Mean
0.533257	59.96564	6.938246	11.57037

Source	DF	Anova SS	Mean Square	F Value	Pr > F
COOM	8	989.9896296	123.7487037	2.57	0.0459

The ANOVA Procedure

Tukey's Studentized Range (HSD) Test for Y

NOTE: This test controls the Type I experimentwise error rate, but it generally has a higher Type II error rate than REGWQ.

Alpha	0.05
Error Degrees of Freedom	18
Error Mean Square	48.13926
Critical Value of Studentized Range	4.95521
Minimum Significant Difference	19.85

Means with the same letter are not significantly different.

Tukey Grouping	Mean	N	COOM
A	26.067	3	13
A			
B A	14.633	3	23
B A			
B A	12.967	3	33
B A			
B A	12.200	3	12
B A			
B A	10.067	3	32
B A			
B A	9.800	3	22
B A			
B A	9.100	3	11
B			
B	5.300	3	31
B			
B	4.000	3	21