Model Information						
Data Set	WORK.MYDATA3					
Dependent Variable	diameter					
Covariance Structure	Variance Components					
Estimation Method	REML					
Residual Variance Method	Profile					
Fixed Effects SE Method	Model-Based					
Degrees of Freedom Method	Containment					

Cla	Class Level Information						
Class	Values						
blocks	3	123					
geo_num	10	12345678910					
origin	2	Intro Nat					

Dimensions	
Covariance Parameters	3
Columns in X	31
Columns in Z	33
Subjects	1
Max Obs per Subject	108

Number of Observations				
Number of Observations Read	240			
Number of Observations Used	108			
Number of Observations Not Used	132			

Iteration History							
Iteration	Evaluations	-2 Res Log Like	Criterion				
0	1	879.14084502					
1	3	878.70396108	0.00000026				
2	1	878.70386665	0.00000000				

Convergence criteria met.

	Covariance Parameter Estimates					
Cov Parm	Estimate					
blocks	7.6749					
blocks*geo_num	46.9741					
Residual	704.67					

Fit Statistics	
-2 Res Log Likelihood	878.7
AIC (Smaller is Better)	884.7
AICC (Smaller is Better)	885.0
BIC (Smaller is Better)	882.0

Type 3 Tests of Fixed Effects								
Effect	Num DF	Den DF	F Value	Pr > F				
geo_num	9	10	0.63	0.7504				
origin	1	78	1.67	0.2000				
geo_num*origin	7	78	0.50	0.8313				

Least Squares Means									
Effect	origin	geo_num	um Estimate Standard DF t		t Value	Pr > t			
geo_num		1	Non-est						
geo_num		2	60.6055	9.3025	10	6.51	<.0001		
geo_num		3	62.0430	9.3025	10	6.67	<.0001		
geo_num		4	74.3829	10.7077	10	6.95	<.0001		
geo_num		5	52.7130	10.2211	10	5.16	0.0004		
geo_num		6	76.1888	10.4191	10	7.31	<.0001		
geo_num		7	Non-est						
geo_num		8	53.5548	9.9414	10	5.39	0.0003		
geo_num		9	63.6888	10.0607	10	6.33	<.0001		
geo_num		10	66.1055	10.0607	10	6.57	<.0001		
origin	Intro		Non-est						
origin	Nat		Non-est						
geo_num*origin	Nat	1	65.2500	8.7715	78	7.44	<.0001		
geo_num*origin	Intro	2	67.7890	10.7393	78	6.31	<.0001		
geo_num*origin	Nat	2	53.4220	15.1826	78	3.52	0.0007		
geo_num*origin	Intro	3	77.4140	10.7393	78	7.21	<.0001		

	Least Squares Means										
Effect	origin	origin geo_num Estimate Standard Error DF		t Value	Pr > t						
geo_num*origin	Nat	3	46.6720	15.1826	78	3.07	0.0029				
geo_num*origin	Intro	4	76.0104	13.0030	78	5.85	<.0001				
geo_num*origin	Nat	4	72.7553	17.0068	78	4.28	<.0001				
geo_num*origin	Intro	5	49.7553	17.0068	78	2.93	0.0045				
geo_num*origin	Nat	5	55.6707	11.3289	78	4.91	<.0001				
geo_num*origin	Intro	6	86.0887	17.0068	78	5.06	<.0001				
geo_num*origin	Nat	6	66.2890	66.2890 12.0288		5.51	<.0001				
geo_num*origin	Intro	7	72.9436	9.0839	78	8.03	<.0001				
geo_num*origin	Intro	8	58.4220	17.0068	78	3.44	0.0010				
geo_num*origin	Nat	8	48.6876	10.2854	78	4.73	<.0001				
geo_num*origin	Intro	9	57.0887	17.0068	78	3.36	0.0012				
geo_num*origin	Nat	9	70.2890	10.7393	78	6.55	<.0001				
geo_num*origin	Intro	10	72.7890	10.7393	78	6.78	<.0001				
geo_num*origin	Nat	10	59.4220	17.0068	78	3.49	0.0008				

Effect of geo_num	origin	geo_num 1 1 1	_origin	_geo_num 2 3	Estimate Non-est	Standard Error	DF	t Value	Pr > t
geo_num geo_num geo_num geo_num geo_num geo_num geo_num geo_num geo_num		1			Non-est				
geo_num geo_num geo_num geo_num geo_num geo_num geo_num geo_num		1		3			•		•
geo_num geo_num geo_num geo_num geo_num geo_num geo_num				-	Non-est				
geo_num geo_num geo_num geo_num geo_num geo_num		1		4	Non-est				
geo_num geo_num geo_num geo_num geo_num				5	Non-est				
geo_num geo_num geo_num geo_num		1		6	Non-est				
geo_num geo_num geo_num		1		7	Non-est				
geo_num geo_num		1		8	Non-est				
geo_num		1		9	Non-est				
		1		10	Non-est				
geo_num		2		3	-1.4375	12.9366	10	-0.11	0.9137
		2		4	-13.7774	13.9812	10	-0.99	0.3477
geo_num		2		5	7.8925	13.6121	10	0.58	0.5749
geo_num		2		6	-15.5833	13.7614	10	-1.13	0.2839
geo_num		2		7	Non-est				
geo_num		2		8	7.0507	13.4034	10	0.53	0.6103
geo_num		2		9	-3.0833	13.4921	10	-0.23	0.8238
geo_num		2		10	-5.5000	13.4921	10	-0.41	0.6921
geo_num		3		4	-12.3399	13.9812	10	-0.88	0.3982
geo_num		3		5	9.3300	13.6121	10	0.69	0.5087
geo_num		3		6	-14.1458	13.7614	10	-1.03	0.3282
geo_num		3		7	Non-est				
geo_num		3		8	8.4882	13.4034	10	0.63	0.5408
geo_num		3		9	-1.6458	13.4921	10	-0.12	0.9053
geo_num		3		10	-4.0625	13.4921	10	-0.30	0.7695
geo_num		4		5	21.6698	14.6094	10	1.48	0.1688
geo_num		4		6	-1.8060	14.7477	10	-0.12	0.9050
geo_num		4		7	Non-est				
geo_num		4		8	20.8280	14.4134	10	1.45	0.1790
geo_num		4		9	10.6940	14.4967	10	0.74	0.4777
geo_num		4		10	8.2774	14.4967	10	0.57	0.5806
geo_num		5		6	-23.4758	14.3983	10	-1.63	0.1341
geo_num		5		7	Non-est				
geo_num		5		8	-0.8418	14.0570	10	-0.06	0.9534
geo_num		J	1	l O	0.0410	17.0570			
geo_num		5		9	-10.9758	14.1411	10	-0.78	0.4556

	Differences of Least Squares Means									
Effect	origin	geo_num	_origin	_geo_num	Estimate	Standard Error	DF	t Value	Pr > t	
geo_num		6		7	Non-est					
geo_num		6		8	22.6340	14.2011	10	1.59	0.1421	
geo_num		6		9	12.5000	14.2849	10	0.88	0.4021	
geo_num		6		10	10.0833	14.2849	10	0.71	0.4964	
geo_num		7		8	Non-est					
geo_num		7		9	Non-est					
geo_num		7		10	Non-est					
geo_num		8		9	-10.1340	13.9403	10	-0.73	0.4839	
geo_num		8		10	-12.5507	13.9403	10	-0.90	0.3891	
geo_num		9		10	-2.4167	14.0256	10	-0.17	0.8666	
origin	Intro		Nat		Non-est					
geo_num*origin	Nat	1	Intro	2	-2.5390	13.6804	78	-0.19	0.8532	
geo_num*origin	Nat	1	Nat	2	11.8280	17.3877	78	0.68	0.4984	
geo_num*origin	Nat	1	Intro	3	-12.1640	13.6804	78	-0.89	0.3767	
geo_num*origin	Nat	1	Nat	3	18.5780	17.3877	78	1.07	0.2886	
geo_num*origin	Nat	1	Intro	4	-10.7604	15.5210	78	-0.69	0.4902	
geo_num*origin	Nat	1	Nat	4	-7.5053	19.0014	78	-0.39	0.6939	
geo_num*origin	Nat	1	Intro	5	15.4947	19.0014	78	0.82	0.4173	
geo_num*origin	Nat	1	Nat	5	9.5793	14.1480	78	0.68	0.5004	
geo_num*origin	Nat	1	Intro	6	-20.8387	19.0014	78	-1.10	0.2762	
geo_num*origin	Nat	1	Nat	6	-1.0390	14.7144	78	-0.07	0.9439	
geo_num*origin	Nat	1	Intro	7	-7.6936	12.4233	78	-0.62	0.5375	
geo_num*origin	Nat	1	Intro	8	6.8280	19.0014	78	0.36	0.7203	
geo_num*origin	Nat	1	Nat	8	16.5624	13.3271	78	1.24	0.2177	
geo_num*origin	Nat	1	Intro	9	8.1613	19.0014	78	0.43	0.6687	
geo_num*origin	Nat	1	Nat	9	-5.0390	13.6804	78	-0.37	0.7136	
geo_num*origin	Nat	1	Intro	10	-7.5390	13.6804	78	-0.55	0.5832	
geo_num*origin	Nat	1	Nat	10	5.8280	19.0014	78	0.31	0.7599	
geo_num*origin	Intro	2	Nat	2	14.3670	18.5886	78	0.77	0.4419	
geo_num*origin	Intro	2	Intro	3	-9.6250	14.9379	78	-0.64	0.5212	
geo_num*origin	Intro	2	Nat	3	21.1170	18.5886	78	1.14	0.2594	
geo_num*origin	Intro	2	Intro	4	-8.2214	16.6399	78	-0.49	0.6226	
geo_num*origin	Intro	2	Nat	4	-4.9663	20.1062	78	-0.25	0.8056	
geo_num*origin	Intro	2	Intro	5	18.0337	20.1062	78	0.90	0.3725	
geo_num*origin	Intro	2	Nat	5	12.1183	15.3673	78	0.79	0.4327	

Differences of Least Squares Means									
Effect	origin	geo_num	_origin	_geo_num	Estimate	Standard Error	DF	t Value	Pr > t
geo_num*origin	Intro	2	Intro	6	-18.2996	20.1062	78	-0.91	0.3655
geo_num*origin	Intro	2	Nat	6	1.5000	15.8903	78	0.09	0.9250
geo_num*origin	Intro	2	Intro	7	-5.1546	13.8698	78	-0.37	0.7112
geo_num*origin	Intro	2	Intro	8	9.3670	20.1062	78	0.47	0.6426
geo_num*origin	Intro	2	Nat	8	19.1014	14.6150	78	1.31	0.1951
geo_num*origin	Intro	2	Intro	9	10.7004	20.1062	78	0.53	0.5961
geo_num*origin	Intro	2	Nat	9	-2.5000	14.9379	78	-0.17	0.8675
geo_num*origin	Intro	2	Intro	10	-5.0000	14.9379	78	-0.33	0.7387
geo_num*origin	Intro	2	Nat	10	8.3670	20.1062	78	0.42	0.6784
geo_num*origin	Nat	2	Intro	3	-23.9920	18.5886	78	-1.29	0.2006
geo_num*origin	Nat	2	Nat	3	6.7500	21.1254	78	0.32	0.7502
geo_num*origin	Nat	2	Intro	4	-22.5884	19.9820	78	-1.13	0.2618
geo_num*origin	Nat	2	Nat	4	-19.3333	22.4723	78	-0.86	0.3923
geo_num*origin	Nat	2	Intro	5	3.6667	22.4723	78	0.16	0.8708
geo_num*origin	Nat	2	Nat	5	-2.2487	18.9354	78	-0.12	0.9058
geo_num*origin	Nat	2	Intro	6	-32.6667	22.4723	78	-1.45	0.1501
geo_num*origin	Nat	2	Nat	6	-12.8670	19.3622	78	-0.66	0.5083
geo_num*origin	Nat	2	Intro	7	-19.5216	17.5678	78	-1.11	0.2699
geo_num*origin	Nat	2	Intro	8	-5.0000	22.4723	78	-0.22	0.8245
geo_num*origin	Nat	2	Nat	8	4.7344	18.3301	78	0.26	0.7969
geo_num*origin	Nat	2	Intro	9	-3.6667	22.4723	78	-0.16	0.8708
geo_num*origin	Nat	2	Nat	9	-16.8670	18.5886	78	-0.91	0.3670
geo_num*origin	Nat	2	Intro	10	-19.3670	18.5886	78	-1.04	0.3007
geo_num*origin	Nat	2	Nat	10	-6.0000	22.4723	78	-0.27	0.7902
geo_num*origin	Intro	3	Nat	3	30.7420	18.5886	78	1.65	0.1022
geo_num*origin	Intro	3	Intro	4	1.4036	16.6399	78	0.08	0.9330
geo_num*origin	Intro	3	Nat	4	4.6587	20.1062	78	0.23	0.8174
geo_num*origin	Intro	3	Intro	5	27.6587	20.1062	78	1.38	0.1729
geo_num*origin	Intro	3	Nat	5	21.7433	15.3673	78	1.41	0.1611
geo_num*origin	Intro	3	Intro	6	-8.6746	20.1062	78	-0.43	0.6673
geo_num*origin	Intro	3	Nat	6	11.1250	15.8903	78	0.70	0.4859
geo_num*origin	Intro	3	Intro	7	4.4704	13.8698	78	0.32	0.7481
geo_num*origin	Intro	3	Intro	8	18.9920	20.1062	78	0.94	0.3478
geo_num*origin	Intro	3	Nat	8	28.7264	14.6150	78	1.97	0.0529
geo_num*origin	Intro	3	Intro	9	20.3254	20.1062	78	1.01	0.3152

Differences of Least Squares Means									
Effect	origin	geo_num	_origin	_geo_num	Estimate	Standard Error	DF	t Value	Pr > t
geo_num*origin	Intro	3	Nat	9	7.1250	14.9379	78	0.48	0.6347
geo_num*origin	Intro	3	Intro	10	4.6250	14.9379	78	0.31	0.7577
geo_num*origin	Intro	3	Nat	10	17.9920	20.1062	78	0.89	0.3736
geo_num*origin	Nat	3	Intro	4	-29.3384	19.9820	78	-1.47	0.1461
geo_num*origin	Nat	3	Nat	4	-26.0833	22.4723	78	-1.16	0.2493
geo_num*origin	Nat	3	Intro	5	-3.0833	22.4723	78	-0.14	0.8912
geo_num*origin	Nat	3	Nat	5	-8.9987	18.9354	78	-0.48	0.6359
geo_num*origin	Nat	3	Intro	6	-39.4167	22.4723	78	-1.75	0.0834
geo_num*origin	Nat	3	Nat	6	-19.6170	19.3622	78	-1.01	0.3141
geo_num*origin	Nat	3	Intro	7	-26.2716	17.5678	78	-1.50	0.1388
geo_num*origin	Nat	3	Intro	8	-11.7500	22.4723	78	-0.52	0.6025
geo_num*origin	Nat	3	Nat	8	-2.0156	18.3301	78	-0.11	0.9127
geo_num*origin	Nat	3	Intro	9	-10.4167	22.4723	78	-0.46	0.6443
geo_num*origin	Nat	3	Nat	9	-23.6170	18.5886	78	-1.27	0.2077
geo_num*origin	Nat	3	Intro	10	-26.1170	18.5886	78	-1.41	0.1640
geo_num*origin	Nat	3	Nat	10	-12.7500	22.4723	78	-0.57	0.5721
geo_num*origin	Intro	4	Nat	4	3.2551	21.4010	78	0.15	0.8795
geo_num*origin	Intro	4	Intro	5	26.2551	21.4010	78	1.23	0.2236
geo_num*origin	Intro	4	Nat	5	20.3397	17.0299	78	1.19	0.2360
geo_num*origin	Intro	4	Intro	6	-10.0783	21.4010	78	-0.47	0.6390
geo_num*origin	Intro	4	Nat	6	9.7214	17.5000	78	0.56	0.5801
geo_num*origin	Intro	4	Intro	7	3.0668	15.6882	78	0.20	0.8455
geo_num*origin	Intro	4	Intro	8	17.5884	21.4010	78	0.82	0.4137
geo_num*origin	Intro	4	Nat	8	27.3228	16.3481	78	1.67	0.0987
geo_num*origin	Intro	4	Intro	9	18.9217	21.4010	78	0.88	0.3793
geo_num*origin	Intro	4	Nat	9	5.7214	16.6399	78	0.34	0.7319
geo_num*origin	Intro	4	Intro	10	3.2214	16.6399	78	0.19	0.8470
geo_num*origin	Intro	4	Nat	10	16.5884	21.4010	78	0.78	0.4406
geo_num*origin	Nat	4	Intro	5	23.0000	23.7429	78	0.97	0.3357
geo_num*origin	Nat	4	Nat	5	17.0846	20.4272	78	0.84	0.4055
geo_num*origin	Nat	4	Intro	6	-13.3333	23.7429	78	-0.56	0.5760
geo_num*origin	Nat	4	Nat	6	6.4663	20.8235	78	0.31	0.7570
geo_num*origin	Nat	4	Intro	7	-0.1883	19.1664	78	-0.01	0.9922
geo_num*origin	Nat	4	Intro	8	14.3333	23.7429	78	0.60	0.5478
geo_num*origin	Nat	4	Nat	8	24.0677	19.8675	78	1.21	0.2294

Differences of Least Squares Means									
Effect	origin	geo_num	_origin	_geo_num	Estimate	Standard Error	DF	t Value	Pr > t
geo_num*origin	Nat	4	Intro	9	15.6667	23.7429	78	0.66	0.5113
geo_num*origin	Nat	4	Nat	9	2.4663	20.1062	78	0.12	0.9027
geo_num*origin	Nat	4	Intro	10	-0.03369	20.1062	78	-0.00	0.9987
geo_num*origin	Nat	4	Nat	10	13.3333	23.7429	78	0.56	0.5760
geo_num*origin	Intro	5	Nat	5	-5.9154	20.4272	78	-0.29	0.7729
geo_num*origin	Intro	5	Intro	6	-36.3333	23.7429	78	-1.53	0.1300
geo_num*origin	Intro	5	Nat	6	-16.5337	20.8235	78	-0.79	0.4296
geo_num*origin	Intro	5	Intro	7	-23.1883	19.1664	78	-1.21	0.2300
geo_num*origin	Intro	5	Intro	8	-8.6667	23.7429	78	-0.37	0.7161
geo_num*origin	Intro	5	Nat	8	1.0677	19.8675	78	0.05	0.9573
geo_num*origin	Intro	5	Intro	9	-7.3333	23.7429	78	-0.31	0.7582
geo_num*origin	Intro	5	Nat	9	-20.5337	20.1062	78	-1.02	0.3103
geo_num*origin	Intro	5	Intro	10	-23.0337	20.1062	78	-1.15	0.2555
geo_num*origin	Intro	5	Nat	10	-9.6667	23.7429	78	-0.41	0.6850
geo_num*origin	Nat	5	Intro	6	-30.4179	20.4272	78	-1.49	0.1405
geo_num*origin	Nat	5	Nat	6	-10.6183	16.2946	78	-0.65	0.5165
geo_num*origin	Nat	5	Intro	7	-17.2729	14.3313	78	-1.21	0.2317
geo_num*origin	Nat	5	Intro	8	-2.7513	20.4272	78	-0.13	0.8932
geo_num*origin	Nat	5	Nat	8	6.9831	15.0556	78	0.46	0.6441
geo_num*origin	Nat	5	Intro	9	-1.4179	20.4272	78	-0.07	0.9448
geo_num*origin	Nat	5	Nat	9	-14.6183	15.3673	78	-0.95	0.3444
geo_num*origin	Nat	5	Intro	10	-17.1183	15.3673	78	-1.11	0.2687
geo_num*origin	Nat	5	Nat	10	-3.7513	20.4272	78	-0.18	0.8548
geo_num*origin	Intro	6	Nat	6	19.7996	20.8235	78	0.95	0.3446
geo_num*origin	Intro	6	Intro	7	13.1450	19.1664	78	0.69	0.4948
geo_num*origin	Intro	6	Intro	8	27.6667	23.7429	78	1.17	0.2475
geo_num*origin	Intro	6	Nat	8	37.4010	19.8675	78	1.88	0.0635
geo_num*origin	Intro	6	Intro	9	29.0000	23.7429	78	1.22	0.2256
geo_num*origin	Intro	6	Nat	9	15.7996	20.1062	78	0.79	0.4344
geo_num*origin	Intro	6	Intro	10	13.2996	20.1062	78	0.66	0.5103
geo_num*origin	Intro	6	Nat	10	26.6667	23.7429	78	1.12	0.2648
geo_num*origin	Nat	6	Intro	7	-6.6546	14.8907	78	-0.45	0.6562
geo_num*origin	Nat	6	Intro	8	7.8670	20.8235	78	0.38	0.7066
geo_num*origin	Nat	6	Nat	8	17.6014	15.5872	78	1.13	0.2623
geo_num*origin	Nat	6	Intro	9	9.2004	20.8235	78	0.44	0.6598

Differences of Least Squares Means									
Effect	origin	geo_num	_origin	_geo_num	Estimate	Standard Error	DF	t Value	Pr > t
geo_num*origin	Nat	6	Nat	9	-4.0000	15.8903	78	-0.25	0.8019
geo_num*origin	Nat	6	Intro	10	-6.5000	15.8903	78	-0.41	0.6836
geo_num*origin	Nat	6	Nat	10	6.8670	20.8235	78	0.33	0.7425
geo_num*origin	Intro	7	Intro	8	14.5216	19.1664	78	0.76	0.4509
geo_num*origin	Intro	7	Nat	8	24.2560	13.5215	78	1.79	0.0767
geo_num*origin	Intro	7	Intro	9	15.8550	19.1664	78	0.83	0.4106
geo_num*origin	Intro	7	Nat	9	2.6546	13.8698	78	0.19	0.8487
geo_num*origin	Intro	7	Intro	10	0.1546	13.8698	78	0.01	0.9911
geo_num*origin	Intro	7	Nat	10	13.5216	19.1664	78	0.71	0.4826
geo_num*origin	Intro	8	Nat	8	9.7344	19.8675	78	0.49	0.6255
geo_num*origin	Intro	8	Intro	9	1.3333	23.7429	78	0.06	0.9554
geo_num*origin	Intro	8	Nat	9	-11.8670	20.1062	78	-0.59	0.5568
geo_num*origin	Intro	8	Intro	10	-14.3670	20.1062	78	-0.71	0.4770
geo_num*origin	Intro	8	Nat	10	-1.0000	23.7429	78	-0.04	0.9665
geo_num*origin	Nat	8	Intro	9	-8.4010	19.8675	78	-0.42	0.6736
geo_num*origin	Nat	8	Nat	9	-21.6014	14.6150	78	-1.48	0.1434
geo_num*origin	Nat	8	Intro	10	-24.1014	14.6150	78	-1.65	0.1032
geo_num*origin	Nat	8	Nat	10	-10.7344	19.8675	78	-0.54	0.5905
geo_num*origin	Intro	9	Nat	9	-13.2004	20.1062	78	-0.66	0.5134
geo_num*origin	Intro	9	Intro	10	-15.7004	20.1062	78	-0.78	0.4372
geo_num*origin	Intro	9	Nat	10	-2.3333	23.7429	78	-0.10	0.9220
geo_num*origin	Nat	9	Intro	10	-2.5000	14.9379	78	-0.17	0.8675
geo_num*origin	Nat	9	Nat	10	10.8670	20.1062	78	0.54	0.5904
geo_num*origin	Intro	10	Nat	10	13.3670	20.1062	78	0.66	0.5081