OIL	MILES	JERRY	SCOTT	ODOMETER	CAR	Car Name	Pont	Pont2
Z	0	1	0	25994.25	Pontiac G6	Pontiac G6	1	0
A	2000	0.75	0.25	28204	Pontiac G6	Pontiac G6	1	0
Z	0	0.75	0.25	33088	Pontiac G6	Pontiac G6	1	0
C	2000	1	0	35300	Pontiac G6	Pontiac G6	1	0
Z	0	0	1	40172.75	Pontiac G6	Pontiac G6	1	0
D	2000	0	1	42385	Pontiac G6	Pontiac G6	1	0
Z	0	1	0	47259.75	Pontiac G6	Pontiac G6	1	0
B	2000	1	0	49472	Pontiac G6	Pontiac G6	1	0
Z	0	1	0	54313.75	Pontiac G6	Pontiac G6	1	0
G	2000	0.75	0.25	56490.75	Pontiac G6	Pontiac G6	1	0
Z	0	1	0	61429	Pontiac G6	Pontiac G6	1	0
I	2000	1	0	63638.75	Pontiac G6	Pontiac G6	1	0
Z	0	1	0	68481	Pontiac G6	Pontiac G6	1	0
Z	0	1	0	68642	Pontiac G6	Pontiac G6	1	0
E	2000	1	0	73247.5	Pontiac G6	Pontiac G6	1	0
Z	0	1	0	78121	Pontiac G6	Pontiac G6	1	0
Z	0	0	1	13036.5	Pontiac G6 (2)	Pontiac G6	0	1
G	2000	0	1	15283.25	Pontiac G6 (2)	Pontiac G6	0	1
Z	0	0	1	20149	Pontiac G6 (2)	Pontiac G6	0	1
I	2000	1	0	22361.75	Pontiac G6 (2)	Pontiac G6	0	1
Z	0	1	0	27203.5	Pontiac G6 (2)	Pontiac G6	0	1
H	2000	1	0	29417.25	Pontiac G6 (2)	Pontiac G6	0	1
Z	0	0.75	0.25	34228	Pontiac G6 (2)	Pontiac G6	0	1
J	2000	0.5	0.5	36439.25	Pontiac G6 (2)	Pontiac G6	0	1
Z	0	1	0	41281	Pontiac G6 (2)	Pontiac G6	0	1
K	2000	1	0	43488.75	Pontiac G6 (2)	Pontiac G6	0	1
Z	0	1	0	48314.75	Pontiac G6 (2)	Pontiac G6	0	1
E	2000	1	0	50525.25	Pontiac G6 (2)	Pontiac G6	0	1
Z	0	1	0	55379	Pontiac G6 (2)	Pontiac G6	0	1
Z	0	0.75	0.25	11547	Buick LaCrosse	Buick LaCrosse	0	0
A	2000	0.833	0.167	13791.33333	Buick LaCrosse	Buick LaCrosse	0	0
Z	0	1	0	18725.5	Buick LaCrosse	Buick LaCrosse	0	0
C	2000	0	1	20942.75	Buick LaCrosse	Buick LaCrosse	0	0
Z	0	1	0	25813.25	Buick LaCrosse	Buick LaCrosse	0	0
D	2000	1	0	28018.75	Buick LaCrosse	Buick LaCrosse	0	0
Z	0	1	0	32849.5	Buick LaCrosse	Buick LaCrosse	0	0
B	2000	1	0	35052.5	Buick LaCrosse	Buick LaCrosse	0	0
Z	0	1	0	39948.75	Buick LaCrosse	Buick LaCrosse	0	0
J	2000	0	1	42150.75	Buick LaCrosse	Buick LaCrosse	0	0
Z	0	1	0	46966.75	Buick LaCrosse	Buick LaCrosse	0	0
E	2000	1	0	49187.66667	Buick LaCrosse	Buick LaCrosse	0	0
Z	0	1	0	7871.25	Buick LaCrosse (2)	Buick LaCrosse	0	0
G	2000	1	0	10076	Buick LaCrosse (2)	Buick LaCrosse	0	0
Z	0	0	1	14943	Buick LaCrosse (2)	Buick LaCrosse	0	0
I	2000	0	1	17157.5	Buick LaCrosse (2)	Buick LaCrosse	0	0
Z	0	1	0	22027.5	Buick LaCrosse (2)	Buick LaCrosse	0	0
H	2000	1	0	24229.25	Buick LaCrosse (2)	Buick LaCrosse	0	0
Z	0	1	0	29060.75	Buick LaCrosse (2)	Buick LaCrosse	0	0
J	2000	0.75	0.25	31266	Buick LaCrosse (2)	Buick LaCrosse	0	0
Z	0	1	0	36128.75	Buick LaCrosse (2)	Buick LaCrosse	0	0
K	2000	1	0	38334.25	Buick LaCrosse (2)	Buick LaCrosse	0	0

E	2000	1	0	45175.75	Buick LaCrosse (2)	Buick LaCrosse	0	0
Z	0	1	0	50063	Buick LaCrosse (2)	Buick LaCrosse	0	0
C	2000	1	0	52267	Buick LaCrosse (2)	Buick LaCrosse	0	0
Z	0	1	0	10849.25	Chevy SSR	Chevy SSR	0	0
A	2000	0.75	0.25	12988	Chevy SSR	Chevy SSR	0	0
Z	0	1	0	17804	Chevy SSR	Chevy SSR	0	0
C	2000	0.75	0.25	20019	Chevy SSR	Chevy SSR	0	0
Z	0	0.75	0.25	24906.5	Chevy SSR	Chevy SSR	0	0
D	2000	0.5	0.5	27102	Chevy SSR	Chevy SSR	0	0
Z	0	0	1	31967	Chevy SSR	Chevy SSR	0	0
B	2000	1	0	34175	Chevy SSR	Chevy SSR	0	0
Z	0	0	1	39121	Chevy SSR	Chevy SSR	0	0
G	2000	1	0	41329.5	Chevy SSR	Chevy SSR	0	0
Z	0	1	0	46281	Chevy SSR	Chevy SSR	0	0
I	2000	0.75	0.25	48528.75	Chevy SSR	Chevy SSR	0	0
Z	0	1	0	53392.75	Chevy SSR	Chevy SSR	0	0
J	2000	1	0	55626	Chevy SSR	Chevy SSR	0	0
Z	0	1	0	60459	Chevy SSR	Chevy SSR	0	0
E	2000	1	0	62686.5	Chevy SSR	Chevy SSR	0	0
Z	0	1	0	67559	Chevy SSR	Chevy SSR	0	0
Z	0	1	0	11567	Saab Aero	Saab Aero	0	0
C	2000	0.75	0.25	13754	Saab Aero	Saab Aero	0	0
Z	0	1	0	18645	Saab Aero	Saab Aero	0	0
D	2000	0.5	0.5	20889	Saab Aero	Saab Aero	0	0
Z	0	1	0	25842.75	Saab Aero	Saab Aero	0	0
B	2000	0	1	28063	Saab Aero	Saab Aero	0	0
Z	0	1	0	32948	Saab Aero	Saab Aero	0	0

General Linear Model: FTP Mean versus Car Name, OIL, Vehicle

Factor	Type	Levels	Values
Car Name	fixed	4	Buick LaCrosse, Chevy SSR, Pontiac G6, Saab Aero
Vehicle(Car Name)	fixed	6	1, 2, 1, 1, 2, 1
OIL	fixed	11	A, B, C, D, E, G, H, I, J, K, Z

Analysis of Variance for FTP Mean, using Adjusted SS for Tests

Source	DF	Seq SS	Adj SS	Adj MS	F	P
LNLNOD	1	7.036	0.677	0.677	24.38	0.000
SCOTT	1	0.119	0.361	0.361	13.00	0.001
Step1	1	17.367	0.686	0.686	24.70	0.000
pScott	1	8.357	0.500	0.500	18.01	0.000
p2Scott	1	27.794	0.135	0.135	4.88	0.032
bScott	1	4.404	0.451	0.451	16.24	0.000
b2Scott	1	7.798	0.503	0.503	18.12	0.000
sScott	1	45.521	0.131	0.131	4.73	0.035
tpOd	1	30.647	0.044	0.044	1.58	0.215
tp2Od	1	87.122	0.045	0.045	1.62	0.209
tbOd	1	14.657	0.017	0.017	0.60	0.442

General Linear Model

Factor Type
Car Name fixed
Vehicle(Car Name) fi
OIL fixed

Analysis of Variance f

Source DF S
LNLNOD 1
SCOTT 1
Step1 1 67
pScott 1 28
p2Scott 1 54
bScott 1 27
b2Scott 1 31
sScott 1 318
tpOd 1 81
tp2Od 1 21
tbOd 1 92

tb2Od	1	45.648	0.010	0.010	0.35	0.554
tsOd	1	81.696	0.172	0.172	6.20	0.016
Car Name	3	0.570	0.398	0.133	4.78	0.005
Vehicle(Car Name)	2	0.040	0.113	0.056	2.03	0.142
OIL	10	4.097	4.097	0.410	14.76	0.000
Error	49	1.360	1.360	0.028		
Total	77	384.234				

S = 0.166613 R-Sq = 99.65% R-Sq(adj) = 99.44%

Term	Coef	SE Coef	T	P
Constant	13.678	1.556	8.79	0.000
LNLNOD	4.1089	0.8322	4.94	0.000
SCOTT	0.4626	0.1283	3.61	0.001
Step1	0.6861	0.1380	4.97	0.000
pScott	-0.8040	0.1895	-4.24	0.000
p2Scott	-0.5354	0.2424	-2.21	0.032
bScott	-0.8133	0.2018	-4.03	0.000
b2Scott	-0.8202	0.1927	-4.26	0.000
sScott	-0.5362	0.2466	-2.17	0.035
tpOd	-2.561	2.040	-1.26	0.215
tp2Od	2.656	2.087	1.27	0.209
tbOd	-1.036	1.338	-0.77	0.442
tb2Od	0.733	1.230	0.60	0.554
tsOd	-5.055	2.031	-2.49	0.016
Car Name				
Buick LaCrosse	-2.364	1.885	-1.25	0.216
Chevy SSR	-6.782	1.934	-3.51	0.001
Pontiac G6	-1.023	2.569	-0.40	0.692
(Car Name)Vehicle				
Buick LaCrosse 1	1.995	1.693	1.18	0.244
Pontiac G6 1	5.833	3.377	1.73	0.090
OIL				
A	-0.0343	0.1082	-0.32	0.753
B	0.16437	0.09226	1.78	0.081
C	-0.02380	0.08174	-0.29	0.772
D	0.02542	0.09000	0.28	0.779
E	-0.02460	0.07938	-0.31	0.758
G	0.03885	0.09004	0.43	0.668
H	0.0517	0.1180	0.44	0.663
I	0.08548	0.09463	0.90	0.371
J	0.03437	0.09158	0.38	0.709
K	0.1342	0.1168	1.15	0.256

Unusual Observations for FTP Mean

Obs	FTP Mean	Fit	SE Fit	Residual	St Resid
26	23.2550	22.9776	0.1251	0.2774	2.52 R
38	19.7850	20.1092	0.0710	-0.3242	-2.15 R

tb2Od	1	219				
tsOd	1	585				
Car Name	3					
Vehicle(Car Name)	2					
OIL	10	6.4				
Error	49	4.(				
Total	77	173				

S = 0.288244 R-Sq =

Term	Coef
Constant	23.62
LNLNOD	1.5
SCOTT	0.41
Step1	1.1328
pScott	-0.8814
p2Scott	-0.397
bScott	-0.968(
b2Scott	-1.227
sScott	-0.1983
tpOd	3.252
tp2Od	9.067
tbOd	3.214
tb2Od	3.481
tsOd	0.456
Car Name	
Buick LaCrosse	-1
Chevy SSR	-2.9
Pontiac G6	-5.94
(Car Name)Vehicle	
Buick LaCrosse 1	(
Pontiac G6 1	6.3
OIL	
A	0.1490
B	0.0772
C	-0.1194
D	0.0494
E	0.0972
G	-0.1061
H	0.0469
I	0.1521 (
J	0.0109
K	0.1990

Unusual Observations

Obs	FFE Mean	Fi
38	33.0425	33.764
40	34.4575	33.837

51	20.5850	20.8624	0.1251	-0.2774	-2.52 R
56	15.9200	16.2153	0.1186	-0.2953	-2.52 R
57	16.2475	15.8168	0.0761	0.4307	2.91 R

R denotes an observation with a large standardized residual.

Means for Covariates

Covariate	Mean	StDev	Covariate	Mean	StDev
LNLNOD	2.33695	0.05294	sScott	0.02244	0.12859
SCOTT	0.21047	0.36056	tpOd	0.48800	0.96695
Step1	0.05128	0.22200	tp2Od	0.38906	0.87579
pScott	0.03526	0.16477	tbOd	0.35756	0.84418
p2Scott	0.04808	0.20169	tb2Od	0.38568	0.86833
bScott	0.03099	0.16179	tsOd	0.20590	0.66009
b2Scott	0.02885	0.16107			

Least Squares Means for FTP Mean

OIL	Mean	SE Mean
A	21.92	0.8244
B	22.12	0.8107
C	21.93	0.7944
D	21.98	0.8057
E	21.93	0.8023
G	21.99	0.8070
H	22.00	0.8183
I	22.04	0.8079
J	21.99	0.7996
K	22.09	0.8078
Z	21.50	0.8051
Car Name		
Buick LaCrosse	19.59	1.7048
Chevy SSR	15.17	1.9257
Pontiac G6	20.93	2.0354
Saab Aero	32.12	4.1404

Tukey Simultaneous Tests
Response Variable FTP Mean
All Pairwise Comparisons among Levels of OIL
OIL = A subtracted from:

OIL	Difference of Means	SE of Difference	Adjusted T-Value	Adjusted P-Value
B	0.1986	0.1482	1.340	0.9565
C	0.0105	0.1341	0.078	1.0000
D	0.0597	0.1420	0.420	1.0000
E	0.0097	0.1452	0.067	1.0000
G	0.0731	0.1500	0.487	1.0000

53	34.3400	33.813(			

R denotes an observa

Means for Covariates

Covariate	Mean	S
LNLNOD	2.33695	
SCOTT	0.21047	0
Step1	0.05128	0.2
pScott	0.03526	0.1
p2Scott	0.04808	0.
bScott	0.03099	0.1
b2Scott	0.02885	0.

Least Squares Means

OIL	Mean	SE
A	35.24	1.4
B	35.16	1.4
C	34.97	1.3
D	35.14	1.3
E	35.18	1.3
G	34.98	1.3
H	35.13	1.4
I	35.24	1.39
J	35.10	1.3
K	35.29	1.3
Z	34.53	1.3
Car Name		
Buick LaCrosse	34.08	
Chevy SSR	32.12	
Pontiac G6	29.14	
Saab Aero	45.01	

Tukey Simultaneous T
Response Variable FP
All Pairwise Comparis
OIL = A subtracted fr

OIL	Difference of Means	SE Differ
B	-0.0718	0.25
C	-0.2684	0.23
D	-0.0996	0.24
E	-0.0518	0.25
G	-0.2551	0.25
H	-0.1021	0.29
I	0.0031	0.269

H	0.0860	0.1733	0.496	1.0000
I	0.1197	0.1560	0.768	0.9994
J	0.0686	0.1541	0.446	1.0000
K	0.1685	0.1720	0.979	0.9956
Z	-0.4175	0.1149	-3.633	0.0252

OIL = B subtracted from:

OIL	Difference of Means	SE of Difference	Adjusted T-Value	P-Value
C	-0.1882	0.1290	-1.459	0.9260
D	-0.1389	0.1275	-1.090	0.9899
E	-0.1890	0.1263	-1.496	0.9142
G	-0.1255	0.1336	-0.940	0.9968
H	-0.1127	0.1627	-0.693	0.9998
I	-0.0789	0.1373	-0.575	1.0000
J	-0.1300	0.1376	-0.945	0.9967
K	-0.0301	0.1618	-0.186	1.0000
Z	-0.6161	0.1016	-6.063	0.0000

OIL = C subtracted from:

OIL	Difference of Means	SE of Difference	Adjusted T-Value	P-Value
D	0.0492	0.12657	0.389	1.0000
E	-0.0008	0.11959	-0.007	1.0000
G	0.0627	0.13022	0.481	1.0000
H	0.0755	0.15426	0.489	1.0000
I	0.1093	0.13397	0.816	0.9990
J	0.0582	0.12189	0.477	1.0000
K	0.1580	0.15041	1.051	0.9924
Z	-0.4279	0.09015	-4.747	0.0009

OIL = D subtracted from:

OIL	Difference of Means	SE of Difference	Adjusted T-Value	P-Value
E	-0.0500	0.12583	-0.398	1.0000
G	0.0134	0.13247	0.101	1.0000
H	0.0263	0.16094	0.163	1.0000
I	0.0601	0.13836	0.434	1.0000
J	0.0090	0.13778	0.065	1.0000
K	0.1088	0.15993	0.680	0.9998
Z	-0.4772	0.09710	-4.914	0.0005

OIL = E subtracted from:

OIL	Difference of Means	SE of Difference	Adjusted
J	-0.1381	0.26	
K	0.0500	0.29	
Z	-0.7051	0.19	

OIL = B subtracted fr

OIL	Difference of Means	SE Differ
C	-0.1966	0.22
D	-0.0278	0.22
E	0.0200	0.21
G	-0.1833	0.23
H	-0.0303	0.28
I	0.0749	0.237
J	-0.0662	0.238
K	0.1218	0.27
Z	-0.6333	0.17

OIL = C subtracted fr

OIL	Difference of Means	SE Differ
D	0.1688	0.21
E	0.2166	0.20
G	0.0133	0.22
H	0.1663	0.26
I	0.2715	0.231
J	0.1303	0.210
K	0.3184	0.26
Z	-0.4367	0.15

OIL = D subtracted fr

OIL	Difference of Means	SE Differ
E	0.0478	0.21
G	-0.1556	0.22
H	-0.0025	0.27
I	0.1026	0.239
J	-0.0385	0.238
K	0.1495	0.27
Z	-0.6056	0.16

OIL = E subtracted fr

OIL	Difference of Means	SE Differ
G	-0.2034	0.21

OIL	of Means	Difference	T-Value	P-Value
G	0.0634	0.12609	0.503	1.0000
H	0.0763	0.14995	0.509	1.0000
I	0.1101	0.12977	0.848	0.9986
J	0.0590	0.12050	0.489	1.0000
K	0.1588	0.14461	1.098	0.9893
Z	-0.4271	0.08510	-5.019	0.0004

OIL = G subtracted from:

OIL	Difference of Means	SE of Difference	Adjusted T-Value	P-Value
H	0.0128	0.15558	0.083	1.0000
I	0.0466	0.13239	0.352	1.0000
J	-0.0045	0.13328	-0.034	1.0000
K	0.0954	0.15944	0.598	0.9999
Z	-0.4906	0.09632	-5.093	0.0003

OIL = H subtracted from:

OIL	Difference of Means	SE of Difference	Adjusted T-Value	P-Value
I	0.0338	0.1542	0.219	1.0000
J	-0.0173	0.1608	-0.108	1.0000
K	0.0825	0.1718	0.480	1.0000
Z	-0.5034	0.1298	-3.877	0.0127

OIL = I subtracted from:

OIL	Difference of Means	SE of Difference	Adjusted T-Value	P-Value
J	-0.0511	0.1399	-0.365	1.0000
K	0.0488	0.1605	0.304	1.0000
Z	-0.5372	0.1024	-5.245	0.0002

OIL = J subtracted from:

OIL	Difference of Means	SE of Difference	Adjusted T-Value	P-Value
K	0.0999	0.1539	0.649	0.9999
Z	-0.4861	0.1004	-4.839	0.0007

OIL = K subtracted from:

OIL	Difference of Means	SE of Difference	Adjusted T-Value	P-Value
Z	-0.5860	0.1285	-4.560	0.0016

H	-0.0503	0.25
I	0.0548	0.224
J	-0.0863	0.208
K	0.1017	0.25
Z	-0.6534	0.14

OIL = G subtracted fr

OIL	Difference of Means	SE Differ
H	0.1530	0.26
I	0.2582	0.229
J	0.1171	0.230
K	0.3051	0.27
Z	-0.4500	0.16

OIL = H subtracted fr

OIL	Difference of Means	SE Differ
I	0.1052	0.266
J	-0.0360	0.278
K	0.1521	0.29
Z	-0.6030	0.22

OIL = I subtracted fro

OIL	Difference of Means	SE Differ
J	-0.1411	0.242
K	0.0469	0.27
Z	-0.7082	0.17

OIL = J subtracted fro

OIL	Difference of Means	SE Differ
K	0.1880	0.26
Z	-0.5671	0.17

OIL = K subtracted fr

OIL	Difference of Means	SE Differ
Z	-0.7551	0.22

Tukey Simultaneous Tests
Response Variable FTP Mean
All Pairwise Comparisons among Levels of Car Name
Car Name = Buick LaCrosse subtracted from:

Car Name	Difference of Means	SE of Difference	T-Value	Adjusted P-Value
Chevy SSR	-4.418	2.476	-1.784	0.2930
Pontiac G6	1.341	3.427	0.391	0.9794
Saab Aero	12.533	4.654	2.693	0.0462

Car Name = Chevy SSR subtracted from:

Car Name	Difference of Means	SE of Difference	T-Value	Adjusted P-Value
Pontiac G6	5.759	3.518	1.637	0.3679
Saab Aero	16.952	4.667	3.632	0.0036

Car Name = Pontiac G6 subtracted from:

Car Name	Difference of Means	SE of Difference	T-Value	Adjusted P-Value
Saab Aero	11.19	5.254	2.130	0.1579

Tukey Simultaneous T
Response Variable FP
All Pairwise Comparis
Car Name = Buick La

Car Name	Difference of Mear
Chevy SSR	-1.956
Pontiac G6	-4.935
Saab Aero	10.926

Car Name = Chevy S

Car Name	Difference of Mear
Pontiac G6	-2.979
Saab Aero	12.883

Car Name = Pontiac G

Car Name	Difference of Mean
Saab Aero	15.86

Buick	Buick2	SSR	Saab	pScott	p2Scott	bScott	b2Scott	rScott	sScott
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0.25	0	0	0	0	0
0	0	0	0	0.25	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	1	0	0	0	0	0
0	0	0	0	1	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0.25	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	1	0	0	0	0
0	0	0	0	0	1	0	0	0	0
0	0	0	0	0	1	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0.25	0	0	0	0
0	0	0	0	0	0.5	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0.25	0	0	0
1	0	0	0	0	0	0.167	0	0	0
1	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	1	0	0	0
1	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	1	0	0	0
1	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	1	0	0
0	1	0	0	0	0	0	1	0	0
0	1	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	0.25	0	0
0	1	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	0	0	0

0	1	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	0	0	0
0	0	1	0	0	0	0	0	0	0
0	0	1	0	0	0	0	0	0.25	0
0	0	1	0	0	0	0	0	0	0
0	0	1	0	0	0	0	0	0.25	0
0	0	1	0	0	0	0	0	0.25	0
0	0	1	0	0	0	0	0	0.5	0
0	0	1	0	0	0	0	0	1	0
0	0	1	0	0	0	0	0	0	0
0	0	1	0	0	0	0	0	1	0
0	0	1	0	0	0	0	0	0	0
0	0	1	0	0	0	0	0	0	0
0	0	1	0	0	0	0	0	0.25	0
0	0	1	0	0	0	0	0	0	0
0	0	1	0	0	0	0	0	0	0
0	0	1	0	0	0	0	0	0	0
0	0	1	0	0	0	0	0	0	0
0	0	1	0	0	0	0	0	0	0
0	0	0	1	0	0	0	0	0	0
0	0	0	1	0	0	0	0	0	0.25
0	0	0	1	0	0	0	0	0	0
0	0	0	1	0	0	0	0	0	0.5
0	0	0	1	0	0	0	0	0	0
0	0	0	1	0	0	0	0	0	1
0	0	0	1	0	0	0	0	0	0

l: FFE Mean versus Car Name, OIL, Vehicle

Levels	Values
d 4	Buick LaCrosse, Chevy SSR, Pontiac G6, Saab Aero
ixed 6	1, 2, 1, 1, 2, 1
11	A, B, C, D, E, G, H, I, J, K, Z

for FFE Mean, using Adjusted SS for Tests

Seq SS	Adj SS	Adj MS	F	P
0.037	0.102	0.102	1.23	0.273
0.354	0.295	0.295	3.55	0.066
7.439	1.869	1.869	22.50	0.000
3.419	0.601	0.601	7.23	0.010
4.195	0.075	0.075	0.90	0.348
7.160	0.639	0.639	7.69	0.008
1.581	1.127	1.127	13.56	0.001
3.469	0.018	0.018	0.22	0.644
.635	0.071	0.071	0.85	0.361
4.725	0.524	0.524	6.31	0.015
.254	0.160	0.160	1.93	0.171

General Linear Model: COMB Mean versus

Factor	Type	Levels	Values
Car Name	fixed	4	Buick LaCross Aero
Vehicle(Car Name)	fixed	6	1, 2, 1, 1, 2
OIL	fixed	11	A, B, C, D, E, G, H

Analysis of Variance for COMB Mean, using

Source	DF	Seq SS	Adj SS	Adj MS
LNLNOD	1	4.390	0.510	0.510
SCOTT	1	0.017	0.372	0.372
Step1	1	29.442	1.009	1.009 26
pScott	1	13.571	0.567	0.567 15
p2Scott	1	37.424	0.129	0.129 3
bScott	1	9.166	0.538	0.538 14
b2Scott	1	13.750	0.683	0.683 1
sScott	1	97.433	0.099	0.099 2
tpOd	1	45.541	0.008	0.008 0
tp2Od	1	125.784	0.130	0.130 3
tbOd	1	30.552	0.000	0.000 0

```
9.778   0.222   0.222   2.68  0.108
5.350   0.001   0.001   0.02  0.897
 0.431   0.278   0.093   1.11  0.353
2     0.035   0.099   0.049   0.59  0.556
463   6.463   0.646   7.78  0.000
.071   4.071   0.083
32.395
```

```
tb2Od           1   85.106   0.047   0.047   1
tsOd            1  176.388   0.103   0.103   2
Car Name        3    0.562   0.366   0.122
Vehicle(Car Name)  2    0.041   0.113   0.05
OIL            10    5.029   5.029   0.503  13.
Error          49    1.853   1.853   0.038
Total          77  676.049
```

```
= 99.76%   R-Sq(adj) = 99.63%
```

```
S = 0.194440   R-Sq = 99.73%   R-Sq(adj) =
```

```
f  SE Coef      T      P
29    2.693   8.78  0.000
597    1.440   1.11  0.273
 81   0.2219   1.88  0.066
8   0.2388   4.74  0.000
4   0.3278  -2.69  0.010
71   0.4193  -0.95  0.348
0   0.3491  -2.77  0.008
76   0.3334  -3.68  0.001
3   0.4266  -0.46  0.644
    3.530   0.92  0.361
7    3.611   2.51  0.015
    2.314   1.39  0.171
1    2.128   1.64  0.108
     3.514   0.13  0.897

L.009    3.261  -0.31  0.758
 965    3.346  -0.89  0.380
044    4.445  -1.34  0.187

0.344    2.929   0.12  0.907
367    5.842   1.09  0.281

  0.1872   0.80  0.430
  0.1596   0.48  0.631
  0.1414  -0.84  0.403
  0.1557   0.32  0.752
  0.1373   0.71  0.482
  0.1558  -0.68  0.499
  0.2041   0.23  0.819
 0.1637   0.93  0.357
  0.1584   0.07  0.945
  0.2021   0.98  0.330
```

```
Term              Coef  SE Coef      T      P
Constant        16.976    1.816   9.35  0.00
LNLNOD           3.5678   0.9712   3.67  0.
SCOTT            0.4695   0.1497   3.14  0.0
Step1            0.8321   0.1611   5.16  0.00
pScott          -0.8565   0.2211  -3.87  0.00
p2Scott         -0.5225   0.2829  -1.85  0.07
bScott          -0.8880   0.2355  -3.77  0.00
b2Scott         -0.9559   0.2249  -4.25  0.00
sScott          -0.4666   0.2878  -1.62  0.11
tpOd            -1.063    2.381  -0.45  0.657
tp2Od            4.519    2.436   1.86  0.070
tbOd             0.129    1.561   0.08  0.935
tb2Od            1.606    1.435   1.12  0.268
tsOd            -3.911    2.370  -1.65  0.105
Car Name
Buick LaCrosse      -2.291    2.200  -1.04  0
Chevy SSR           -6.002    2.257  -2.66  0.0
Pontiac G6          -2.439    2.998  -0.81  0.4
(Car Name)Vehicle
 Buick LaCrosse 1     1.675    1.975   0.85  0
 Pontiac G6  1        6.205    3.941   1.57  0.1
OIL
A                0.0128   0.1263   0.10  0.920
B                0.1490   0.1077   1.38  0.173
C               -0.04600  0.09539  -0.48  0.63
D                0.0282   0.1050   0.27  0.789
E                0.00548  0.09264   0.06  0.953
G                0.0028   0.1051   0.03  0.979
H                0.0552   0.1377   0.40  0.690
I                0.1047   0.1104   0.95  0.348
J                0.0300   0.1069   0.28  0.780
K                0.1583   0.1363   1.16  0.251
```

```
s for FFE Mean

it  SE Fit  Residual  St Resid
2  0.1228   -0.7217     -2.77 R
'2  0.1420    0.6203      2.47 R
```

```
Unusual Observations for COMB Mean

Obs  COMB Mean      Fit  SE Fit  Residual
 26    27.9552  27.6446  0.1461    0.3107
 38    24.1442  24.5850  0.0829   -0.4408
```

36 0.1395 0.5264 2.09 R

ation with a large standardized residual.

;

StDev Covariate Mean StDev
0.05294 sScott 0.02244 0.12859
0.36056 tpOd 0.48800 0.96695
22200 tp2Od 0.38906 0.87579
16477 tbOd 0.35756 0.84418
.20169 tb2Od 0.38568 0.86833
16179 tsOd 0.20590 0.66009
.16107

s for FFE Mean

E Mean
426
403
374
394
388
396
416
398
383
398
393

)8 2.949
2 3.331
3.521
7.163

Tests
FE Mean
sons among Levels of OIL
rom:

of Adjusted
erence T-Value P-Value
564 -0.280 1.0000
320 -1.157 0.9843
457 -0.405 1.0000
512 -0.206 1.0000
595 -0.983 0.9955
999 -0.340 1.0000
99 0.011 1.0000

51 25.0501 25.3608 0.1461 -0.3107
56 18.8043 19.1257 0.1384 -0.3214
57 19.0235 18.6118 0.0889 0.4117

R denotes an observation with a large stanc

Means for Covariates

Covariate Mean StDev Covariate Me
LNLNOD 2.33695 0.05294 sScott 0.0
SCOTT 0.21047 0.36056 tpOd 0.48
Step1 0.05128 0.22200 tp2Od 0.389
pScott 0.03526 0.16477 tbOd 0.3575
p2Scott 0.04808 0.20169 tb2Od 0.385
bScott 0.03099 0.16179 tsOd 0.2059
b2Scott 0.02885 0.16107

Least Squares Means for COMB Mean

OIL Mean SE Mean
A 26.45 0.9621
B 26.58 0.9461
C 26.39 0.9270
D 26.46 0.9402
E 26.44 0.9363
G 26.44 0.9417
H 26.49 0.9550
I 26.54 0.9428
J 26.46 0.9332
K 26.59 0.9428
Z 25.93 0.9395
Car Name
Buick LaCrosse 24.14 1.9896
Chevy SSR 20.43 2.2473
Pontiac G6 24.00 2.3753
Saab Aero 37.17 4.8319

Tukey Simultaneous Tests
Response Variable COMB Mean
All Pairwise Comparisons among Levels of
OIL = A subtracted from:

Difference SE of Adjusted
OIL of Means Difference T-Value P-Val
B 0.1362 0.1729 0.788 0.9993
C -0.0588 0.1565 -0.376 1.0000
D 0.0155 0.1657 0.093 1.0000
E -0.0073 0.1695 -0.043 1.0000
G -0.0100 0.1751 -0.057 1.0000

365	-0.518	1.0000	
976	0.168	1.0000	
988	-3.547	0.0319	

rom:

of	Adjusted		
erence	T-Value	P-Value	
231	-0.881	0.9981	
206	-0.126	1.0000	
185	0.092	1.0000	
311	-0.793	0.9992	
314	-0.108	1.0000	
75	0.315	1.0000	
380	-0.278	1.0000	
799	0.435	1.0000	
758	-3.603	0.0274	

rom:

of	Adjusted		
erence	T-Value	P-Value	
190	0.771	0.9994	
069	1.047	0.9926	
253	0.059	1.0000	
569	0.623	0.9999	
18	1.171	0.9828	
09	0.618	0.9999	
502	1.224	0.9765	
560	-2.800	0.1884	

rom:

of	Adjusted		
erence	T-Value	P-Value	
177	0.220	1.0000	
292	-0.679	0.9998	
784	-0.009	1.0000	
94	0.429	1.0000	
384	-0.162	1.0000	
767	0.540	1.0000	
580	-3.605	0.0273	

rom:

of	Adjusted		
erence	T-Value	P-Value	
181	-0.932	0.9970	

H	0.0424	0.2023	0.210	1.0000
I	0.0920	0.1820	0.505	1.0000
J	0.0173	0.1798	0.096	1.0000
K	0.1455	0.2008	0.725	0.9997
Z	-0.5134	0.1341	-3.829	0.0146

OIL = B subtracted from:

	Difference	SE of		Adjusted
OIL	of Means	Difference	T-Value	P-Val
C	-0.1950	0.1505	-1.296	0.9653
D	-0.1208	0.1488	-0.812	0.9991
E	-0.1435	0.1474	-0.974	0.9958
G	-0.1463	0.1559	-0.938	0.9969
H	-0.0938	0.1898	-0.494	1.0000
I	-0.0443	0.1602	-0.276	1.0000
J	-0.1190	0.1605	-0.741	0.9996
K	0.0093	0.1888	0.049	1.0000
Z	-0.6496	0.1186	-5.478	0.0001

OIL = C subtracted from:

	Difference	SE of		Adjusted
OIL	of Means	Difference	T-Value	P-Val
D	0.0742	0.1477	0.503	1.0000
E	0.0515	0.1396	0.369	1.0000
G	0.0488	0.1520	0.321	1.0000
H	0.1012	0.1800	0.562	1.0000
I	0.1507	0.1563	0.964	0.9961
J	0.0760	0.1422	0.535	1.0000
K	0.2043	0.1755	1.164	0.9836
Z	-0.4546	0.1052	-4.321	0.0034

OIL = D subtracted from:

	Difference	SE of		Adjusted
OIL	of Means	Difference	T-Value	P-Val
E	-0.0228	0.1468	-0.155	1.0000
G	-0.0255	0.1546	-0.165	1.0000
H	0.0270	0.1878	0.144	1.0000
I	0.0765	0.1615	0.474	1.0000
J	0.0018	0.1608	0.011	1.0000
K	0.1301	0.1866	0.697	0.9998
Z	-0.5289	0.1133	-4.667	0.0011

OIL = E subtracted from:

Difference	SE of	Adjusted

594 -0.194 1.0000
45 0.244 1.0000
)85 -0.414 1.0000
502 0.407 1.0000
472 -4.438 0.0023

rom:

of Adjusted
erence T-Value P-Value
592 0.569 1.0000
90 1.127 0.9870
:06 0.508 1.0000
758 1.106 0.9887
566 -2.700 0.2296

rom:

of Adjusted
erence T-Value P-Value
67 0.394 1.0000
783 -0.129 1.0000
973 0.512 1.0000
246 -2.685 0.2366

om:

of Adjusted
erence T-Value P-Value
:21 -0.583 1.0000
777 0.169 1.0000
772 -3.997 0.0090

om:

of Adjusted
erence T-Value P-Value
563 0.706 0.9997
738 -3.263 0.0662

rom:

of Adjusted
erence T-Value P-Value
223 -3.397 0.0473

OIL	of Means	Difference	T-Value	P-Val
G	-0.0027	0.14715	-0.018	1.0000
H	0.0497	0.17499	0.284	1.0000
I	0.0993	0.15144	0.655	0.9999
J	0.0246	0.14063	0.175	1.0000
K	0.1528	0.16876	0.906	0.9977
Z	-0.5061	0.09931	-5.096	0.0003

OIL = G subtracted from:

OIL	Difference of Means	SE of Difference	T-Value	Adjusted P-Val
H	0.0525	0.1816	0.289	1.0000
I	0.1020	0.1545	0.660	0.9998
J	0.0273	0.1555	0.175	1.0000
K	0.1556	0.1861	0.836	0.9988
Z	-0.5034	0.1124	-4.478	0.0021

OIL = H subtracted from:

OIL	Difference of Means	SE of Difference	T-Value	Adjusted P-Val
I	0.0495	0.1799	0.275	1.0000
J	-0.0252	0.1877	-0.134	1.0000
K	0.1031	0.2005	0.514	1.0000
Z	-0.5558	0.1515	-3.669	0.0229

OIL = I subtracted from:

OIL	Difference of Means	SE of Difference	T-Value	Adjusted P-Val
J	-0.0747	0.1633	-0.457	1.0000
K	0.0536	0.1874	0.286	1.0000
Z	-0.6054	0.1195	-5.064	0.0003

OIL = J subtracted from:

OIL	Difference of Means	SE of Difference	T-Value	Adjusted P-Val
K	0.1283	0.1797	0.714	0.9997
Z	-0.5307	0.1172	-4.527	0.0018

OIL = K subtracted from:

OIL	Difference of Means	SE of Difference	T-Value	Adjusted P-Val
Z	-0.6589	0.1500	-4.394	0.0027

Tests
FE Mean
sons among Levels of Car Name
aCrosse subtracted from:

ns	SE of Difference	T-Value	Adjusted P-Value
6	4.283	-0.4567	0.9680
;	5.930	-0.8323	0.8388
6	8.052	1.3569	0.5319

SR subtracted from:

ns	SE of Difference	T-Value	Adjusted P-Value
)	6.087	-0.4895	0.9611
3	8.074	1.5955	0.3906

G6 subtracted from:

ıs	SE of Difference	T-Value	Adjusted P-Value
	9.089	1.745	0.3120

Tukey Simultaneous Tests
Response Variable COMB Mean
All Pairwise Comparisons among Levels of
Car Name = Buick LaCrosse subtracted fro

Car Name	Difference of Means	SE of Difference	Adjusted T-Value
Chevy SSR	-3.711	2.889	-1.284
Pontiac G6	-0.148	4.000	-0.037
Saab Aero	13.022	5.432	2.397

Car Name = Chevy SSR subtracted from:

Car Name	Difference of Means	SE of Difference	Adjusted T-Value
Pontiac G6	3.563	4.106	0.8678
Saab Aero	16.733	5.447	3.0722

Car Name = Pontiac G6 subtracted from:

Car Name	Difference of Means	SE of Difference	Adjusted T-Value
Saab Aero	13.17	6.131	2.148

pOd	p2Od	bOd	b2Od	rOd	sOd	Make	Vehicle	FTP Mean	STDEV(FTP)
25994.25	0	0	0	0	0	-1	1	21.645	0.059160798
28204	0	0	0	0	0	-1	1	22.105	0.192093727
33088	0	0	0	0	0	-1	1	21.4125	0.168399327
35300	0	0	0	0	0	-1	1	22.035	0.120692447
40172.75	0	0	0	0	0	-1	1	21.3825	0.060207973
42385	0	0	0	0	0	-1	1	21.8	0.046904158
47259.75	0	0	0	0	0	-1	1	21.78	0.085244746
49472	0	0	0	0	0	-1	1	22.4	0.080415587
54313.75	0	0	0	0	0	-1	1	21.65	0.070237692
56490.75	0	0	0	0	0	-1	1	22.175	0.159687194
61429	0	0	0	0	0	-1	1	21.8025	0.114418821
63638.75	0	0	0	0	0	-1	1	22.24	0.108627805
68481	0	0	0	0	0	-1	1	22.45	0.217408985
68642	0	0	0	0	0	-1	1	22.345	0.162992842
73247.5	0	0	0	0	0	-1	1	22.91	0.106458129
78121	0	0	0	0	0	-1	1	22.56	0.141421356
0	13036.5	0	0	0	0	-1	2	21.5475	0.076757193
0	15283.25	0	0	0	0	-1	2	22.0625	0.113247517
0	20149	0	0	0	0	-1	2	21.815	0.075055535
0	22361.75	0	0	0	0	-1	2	22.5725	0.122848145
0	27203.5	0	0	0	0	-1	2	22.125	0.096090235
0	29417.25	0	0	0	0	-1	2	22.45	0.029439203
0	34228	0	0	0	0	-1	2	22.26	0.389957263
0	36439.25	0	0	0	0	-1	2	22.7275	0.321493909
0	41281	0	0	0	0	-1	2	22.275	0.055075705
0	43488.75	0	0	0	0	-1	2	23.255	0.081853528
0	48314.75	0	0	0	0	-1	2	22.2	0.084852814
0	50525.25	0	0	0	0	-1	2	22.955	0.189296945
0	55379	0	0	0	0	-1	2	22.613	0.129
0	0	11547	0	0	0	-3	1	19.705	0.331109247
0	0	13791.33	0	0	0	-3	1	20.30333	0.399382857
0	0	18725.5	0	0	0	-3	1	19.9125	0.035939764
0	0	20942.75	0	0	0	-3	1	19.83	0.121928941
0	0	25813.25	0	0	0	-3	1	19.835	0.040414519
0	0	28018.75	0	0	0	-3	1	20.445	0.111205515
0	0	32849.5	0	0	0	-3	1	19.9725	0.055602758
0	0	35052.5	0	0	0	-3	1	20.6375	0.110264833
0	0	39948.75	0	0	0	-3	1	19.785	0.112694277
0	0	42150.75	0	0	0	-3	1	20.38	0.040824829
0	0	46966.75	0	0	0	-3	1	20.3825	0.067019898
0	0	49187.67	0	0	0	-3	1	20.79	0.08
0	0	0	7871.25	0	0	-3	2	19.465	0.058022984
0	0	0	10076	0	0	-3	2	20.05	0.143061758
0	0	0	14943	0	0	-3	2	19.43	0.080415587
0	0	0	17157.5	0	0	-3	2	20.1075	0.078475049
0	0	0	22027.5	0	0	-3	2	20.2375	0.07410578
0	0	0	24229.25	0	0	-3	2	20.7575	0.040311289
0	0	0	29060.75	0	0	-3	2	20.0925	0.097082439
0	0	0	31266	0	0	-3	2	20.5825	0.173469498
0	0	0	36128.75	0	0	-3	2	20.09	0.10198039
0	0	0	38334.25	0	0	-3	2	20.585	0.165227116

0	0	0	45175.75	0	0	-3	2	20.6825	0.06946222
0	0	0	50063	0	0	-3	2	20.5425	0.079739158
0	0	0	52267	0	0	-3	2	20.955	0.129
0	0	0	0	10849.25	0	3	1	15.475	0.059721576
0	0	0	0	12988	0	3	1	15.92	0.086409876
0	0	0	0	17804	0	3	1	16.2475	0.102428837
0	0	0	0	20019	0	3	1	16.36	0.283313725
0	0	0	0	24906.5	0	3	1	16.0925	0.212661703
0	0	0	0	27102	0	3	1	16.935	0.040414519
0	0	0	0	31967	0	3	1	16.5625	0.061305247
0	0	0	0	34175	0	3	1	16.6425	0.145229703
0	0	0	0	39121	0	3	1	16.53	0.080829038
0	0	0	0	41329.5	0	3	1	16.7275	0.073200638
0	0	0	0	46281	0	3	1	16.3675	0.038622101
0	0	0	0	48528.75	0	3	1	16.81	0.137355985
0	0	0	0	53392.75	0	3	1	16.1875	0.069940451
0	0	0	0	55626	0	3	1	16.6325	0.017078251
0	0	0	0	60459	0	3	1	16.26	0.060553007
0	0	0	0	62686.5	0	3	1	16.58	0.062716292
0	0	0	0	67559	0	3	1	16.405	0.042031734
0	0	0	0	0	11567	1	1	21.24667	0.265015723
0	0	0	0	0	13754	1	1	21.8375	0.097425185
0	0	0	0	0	18645	1	1	21.13	0.055075705
0	0	0	0	0	20889	1	1	21.495	0.134783777
0	0	0	0	0	25842.75	1	1	21.26	0.065828059
0	0	0	0	0	28063	1	1	21.7775	0.095350232
0	0	0	0	0	32948	1	1	21.2125	0.109658561

s Car Name, OIL, Vehicle

se, Chevy SSR, Pontiac G6, Saab

2, 1
H, I, J, K, Z

g Adjusted SS for Tests

S	F	P
	13.50	0.001
	9.84	0.003
	6.68	0.000
	5.01	0.000
	3.41	0.071
	4.22	0.000
	18.07	0.000
	2.63	0.111
	0.20	0.657
	3.44	0.070
	0.01	0.935

1.25 0.268
2.72 0.105
  3.22 0.030
57   1.50 0.234
.30 0.000

= 99.57%

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0.303
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122

32

3

St Resid
  2.42 R
 -2.51 R

-2.42 R
-2.35 R
2.38 R

dardized residual.

ean StDev
)2244 0.12859
8800 0.96695
906 0.87579
'56 0.84418
3568 0.86833
390 0.66009

OIL

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Car Name
om:

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e P-Value
0.5772
L.0000
0.0909

d
e P-Value
0.8214
0.0176

e P-Value
.1526

FTPWT	FFE Mean	STDEV(FFE)	FFEWT	COMB Mean	STDEV(COMB)	COMBWT	W1
285.7142857	34.715	0.375632799	7.087172	26.05973002	0.121521648	67.71622	1
27.100271	35.3975	0.378010141	6.998309	26.59955663	0.218586982	20.92914	1
35.26300323	34.6475	0.198053023	25.49395	25.85711949	0.174708705	32.76204	1
68.64988558	35.3225	0.303466088	10.85875	26.52463702	0.113886629	77.10003	1
275.862069	34.405	0.103440804	93.45794	25.77209694	0.033947891	867.7096	1
454.5454545	35.1925	0.097082439	106.1008	26.30456766	0.054502508	336.641	1
137.6146789	35.155	0.173108829	33.37041	26.27902282	0.090581961	121.8755	1
154.6391753	36.015	0.132035349	57.36138	26.99160103	0.066266323	227.7269	1
202.7027027	34.9625	0.07804913	164.1587	26.12663179	0.071926658	193.2948	1
39.21568627	35.4775	0.243087776	16.92286	26.67589745	0.173471225	33.23113	1
76.38446849	34.92	0.201328918	24.67105	26.23746311	0.105901071	89.166	1
84.74576271	35.7525	0.145229703	47.41209	26.79758226	0.118501743	71.21156	0
21.15655853	36.13	0.305832198	10.69138	27.06069032	0.248179662	16.23557	0
37.64115433	36.09	0.248596058	16.18123	26.96647223	0.175157341	32.59442	0
88.23529412	37.16	0.126491106	62.5	27.68776167	0.081207414	151.6382	0
50	36.6225	0.138894444	51.83585	27.27232276	0.127409955	61.60178	0
169.7312588	34.775	0.119023807	70.58824	25.99741892	0.0883641	128.0703	1
77.97270955	35.36	0.161038298	38.56041	26.55659197	0.130232469	58.96054	1
177.5147929	35.1975	0.130735101	58.50804	26.31785533	0.091960995	118.2477	1
66.26173385	36.1825	0.285	12.31148	27.1715004	0.140235998	50.84883	1
108.3032491	35.595	0.126622799	62.37006	26.6658205	0.081789644	149.487	1
1153.846154	36.0625	0.097425185	105.3556	27.04364592	0.039705306	634.312	1
6.57606313	35.645	0.310537169	10.36986	26.78562754	0.372528853	7.205766	1
9.67507861	36.61	0.321973084	9.646302	27.40351507	0.337663488	8.77065	1
329.6703297	35.8125	0.245136017	16.64124	26.84045695	0.066331561	227.2791	1
149.2537313	37.1275	0.139612559	51.30398	27.95523677	0.053706954	346.6881	1
138.8888889	35.8	0.096263527	107.9137	26.77750969	0.066950459	223.0966	1
27.90697674	36.6775	0.176328292	32.16296	27.60192124	0.175173209	32.58852	1
60.09254252	36.49	0.135	54.86968	27.282	0.123	66.09822	1
9.121313469	33.195	0.327871926	9.302326	24.11480652	0.350527106	8.138733	1
6.269330436	34.19666667	0.542758387	3.394587	24.84502295	0.435134201	5.281455	1
774.1935484	33.54	0.262678511	14.49275	24.36757064	0.061590091	263.62	1
67.26457399	33.055	0.193304596	26.76182	24.18400997	0.132471265	56.98449	1
612.244898	33.1575	0.115578256	74.85964	24.21284639	0.057116313	306.5347	1
80.86253369	33.9325	0.104682058	91.25475	24.89836639	0.099401355	101.2081	1
323.4501348	33.59	0.054772256	333.3333	24.42911856	0.052138268	367.8636	1
82.24811515	34.2675	0.060207973	275.8621	25.13662813	0.103847469	92.72742	1
78.74015748	33.0425	0.285817541	12.24115	24.14420449	0.155941583	41.12218	1
600	34.0025	0.172119145	33.75527	24.86209206	0.021632603	2136.891	1
222.6345083	34.4575	0.051881275	371.517	24.97282796	0.067107133	222.0561	1
156.25	34.91333333	0.230289673	18.85607	25.41647686	0.063486285	248.1077	1
297.029703	32.955	0.117331439	72.63923	23.86015939	0.070894032	198.9668	1
48.85993485	33.35	0.269196335	13.79945	24.43507128	0.176269422	32.18445	1
154.6391753	32.255	0.14571662	47.09576	23.66411548	0.100211786	99.57777	1
162.3815968	33.3675	0.123659479	65.3951	24.48628394	0.090218377	122.8598	1
182.0940819	33.76	0.090553851	121.9512	24.68724386	0.070709649	200.0058	1
615.3846154	34.225	0.098826447	102.3891	25.22398623	0.042186788	561.8845	1
106.1007958	33.3175	0.112952792	78.38014	24.46184168	0.089853677	123.8592	1
33.23179175	33.805	0.127148207	61.85567	24.97898461	0.163470133	37.42167	1
96.15384615	33.2825	0.228965063	19.07487	24.45126516	0.121077839	68.21355	1
36.63003663	34.0875	0.338366172	8.73426	25.05010435	0.208597903	22.98159	1

207.253886	34.215	0.071879529	193.5484	25.16049547	0.041045614	593.5625	1
157.2739187	34.34	0.123558353	65.50218	25.07625169	0.039588916	638.0472	1
60.09254252	34.52	0.154	42.16563	25.456	0.137	53.27934	1
280.3738318	23.7325	0.090691786	121.5805	18.34766104	0.048032484	433.4409	1
133.9285714	24.1525	0.146372812	46.67445	18.80428819	0.106009535	88.98363	1
95.31374106	24.045	0.06244998	256.4103	19.02352669	0.090199496	122.9113	1
12.45847176	24.3025	0.034034296	863.3094	19.17981299	0.210485456	22.57126	1
22.1116639	23.9275	0.137204227	53.12085	18.87321127	0.189585667	27.82204	1
612.244898	24.7725	0.048562674	424.0283	19.74628664	0.043059768	539.3326	1
266.075388	24.4375	0.083815273	142.3488	19.37162742	0.068504383	213.0901	1
47.41209008	24.255	0.107857931	85.95989	19.3794729	0.138258848	52.31354	1
153.0612245	24.19	0.081240384	151.5152	19.27682222	0.072457319	190.4739	1
186.6251944	24.4175	0.0585235	291.9708	19.48950797	0.05305178	355.304	1
670.3910615	24.1675	0.051234754	380.9524	19.14856587	0.042791843	546.1073	1
53.00353357	24.5	0.130384048	58.82353	19.57479336	0.137427933	52.94805	1
204.4293015	24.0025	0.073654599	184.3318	18.96624197	0.04580059	476.7139	1
3428.571429	24.2525	0.057373048	303.7975	19.37136174	0.028552303	1226.642	1
272.7272727	24.025	0.079372539	158.7302	19.02736996	0.065125689	235.7737	1
254.2372881	24.38	0.146515073	46.58385	19.36843024	0.082047087	148.5503	1
566.0377358	24.1275	0.057373048	303.7975	19.16535945	0.022418745	1989.653	1
14.23825344	37.42333333	0.762911091	1.718115	26.37511162	0.264057727	14.34175	1
105.3555751	38.1625	0.298817112	11.19925	27.04308709	0.126329433	62.66007	1
329.6703297	37.885	0.133166562	56.39098	26.38000197	0.076292944	171.8032	1
55.04587156	38.475	0.144798711	47.69475	26.82152388	0.128354721	60.69827	1
230.7692308	37.705	0.175594229	32.43243	26.45142618	0.064820057	238.0023	1
109.9908341	38.58	0.116045968	74.25743	27.08592174	0.101966791	96.1795	1
83.16008316	37.7325	0.047871355	436.3636	26.41705037	0.094334181	112.373	1

W2	Step1	Step2	LNLNOD	tpOd	tp2Od	tbOd	tb2Od	trOd
1	0	0	2.31901249	2.319012	0	0	0	0
1	0	0	2.32700636	2.327006	0	0	0	0
1	0	0	2.34247154	2.342472	0	0	0	0
1	0	0	2.34867048	2.34867	0	0	0	0
1	0	0	2.36094307	2.360943	0	0	0	0
1	0	0	2.36598701	2.365987	0	0	0	0
1	0	0	2.37615281	2.376153	0	0	0	0
1	0	0	2.38039412	2.380394	0	0	0	0
1	0	0	2.38899512	2.388995	0	0	0	0
1	0	0	2.39259326	2.392593	0	0	0	0
1	0	0	2.40022323	2.400223	0	0	0	0
0.5	0	1	2.4034234	2.403423	0	0	0	0
0.5	1	1	2.41003148	2.410031	0	0	0	0
0.5	1	1	2.41024236	2.410242	0	0	0	0
0.5	1	1	2.41605657	2.416057	0	0	0	0
0.5	1	1	2.4217906	2.421791	0	0	0	0
1	0	0	2.24871041	0	2.24871	0	0	0
1	0	0	2.26535173	0	2.265352	0	0	0
1	0	0	2.29363616	0	2.293636	0	0	0
1	0	0	2.30409467	0	2.304095	0	0	0
1	0	0	2.32347545	0	2.323475	0	0	0
1	0	0	2.33110807	0	2.331108	0	0	0
1	0	0	2.34572114	0	2.345721	0	0	0
1	0	0	2.35169918	0	2.351699	0	0	0
1	0	0	2.36350686	0	2.363507	0	0	0
1	0	0	2.36839695	0	2.368397	0	0	0
1	0	0	2.37820191	0	2.378202	0	0	0
1	0	0	2.38234116	0	2.382341	0	0	0
1	0	0	2.39077505	0	2.390775	0	0	0
1	0	0	2.2358234	0	0	2.235823	0	0
1	0	0	2.25463312	0	0	2.254633	0	0
1	0	0	2.286216	0	0	2.286216	0	0
1	0	0	2.2975271	0	0	2.297527	0	0
1	0	0	2.31832489	0	0	2.318325	0	0
1	0	0	2.32636306	0	0	2.326363	0	0
1	0	0	2.34177617	0	0	2.341776	0	0
1	0	0	2.34799834	0	0	2.347998	0	0
1	0	0	2.36041548	0	0	2.360415	0	0
1	0	0	2.36546672	0	0	2.365467	0	0
1	0	0	2.37557485	0	0	2.375575	0	0
1	0	0	2.37986073	0	0	2.379861	0	0
1	0	0	2.19399405	0	0	0	2.193994	0
1	0	0	2.22114851	0	0	0	2.221149	0
1	0	0	2.26301213	0	0	0	2.263012	0
1	0	0	2.27728684	0	0	0	2.277287	0
1	0	0	2.30258979	0	0	0	2.30259	0
1	0	0	2.31207154	0	0	0	2.312072	0
1	0	0	2.32992238	0	0	0	2.329922	0
1	0	0	2.3370142	0	0	0	2.337014	0
1	0	0	2.35088411	0	0	0	2.350884	0
1	0	0	2.35651432	0	0	0	2.356514	0

1	0	0	2.37195403	0	0	0	2.371954	0
1	0	0	2.38149216	0	0	0	2.381492	0
1	0	0	2.38546566	0	0	0	2.385466	0
1	0	0	2.2291378	0	0	0	0	2.229138
1	0	0	2.24831697	0	0	0	0	2.248317
1	0	0	2.28107321	0	0	0	0	2.281073
1	0	0	2.29298285	0	0	0	0	2.292983
1	0	0	2.31479861	0	0	0	0	2.314799
1	0	0	2.3231093	0	0	0	0	2.323109
1	0	0	2.33915416	0	0	0	0	2.339154
1	0	0	2.34557271	0	0	0	0	2.345573
1	0	0	2.35843737	0	0	0	0	2.358437
1	0	0	2.36361733	0	0	0	0	2.363617
1	0	0	2.37420661	0	0	0	0	2.374207
1	0	0	2.37861159	0	0	0	0	2.378612
1	0	0	2.38742522	0	0	0	0	2.387425
1	0	0	2.39118243	0	0	0	0	2.391182
1	0	0	2.39877859	0	0	0	0	2.398779
1	0	0	2.40205944	0	0	0	0	2.402059
1	0	0	2.40881332	0	0	0	0	2.408813
1	0	0	2.23600839	0	0	0	0	0
1	0	0	2.2543487	0	0	0	0	0
1	0	0	2.28577797	0	0	0	0	0
1	0	0	2.29726878	0	0	0	0	0
1	0	0	2.31843732	0	0	0	0	0
1	0	0	2.32651715	0	0	0	0	0
1	0	0	2.34206403	0	0	0	0	0

tsOd	LNOD	lnpOd	lnp2Od	lnbOd	lnb2Od	lnrOd	lnsOd
0	10.16563	10.16563	0	0	0	0	0
0	10.24722	10.24722	0	0	0	0	0
0	10.40693	10.40693	0	0	0	0	0
0	10.47164	10.47164	0	0	0	0	0
0	10.60094	10.60094	0	0	0	0	0
0	10.65455	10.65455	0	0	0	0	0
0	10.76341	10.76341	0	0	0	0	0
0	10.80916	10.80916	0	0	0	0	0
0	10.90253	10.90253	0	0	0	0	0
0	10.94183	10.94183	0	0	0	0	0
0	11.02564	11.02564	0	0	0	0	0
0	11.06098	11.06098	0	0	0	0	0
0	11.13431	11.13431	0	0	0	0	0
0	11.13666	11.13666	0	0	0	0	0
0	11.2016	11.2016	0	0	0	0	0
0	11.26601	11.26601	0	0	0	0	0
0	9.475508	0	9.475508	0	0	0	0
0	9.634513	0	9.634513	0	0	0	0
0	9.91091	0	9.91091	0	0	0	0
0	10.01511	0	10.01511	0	0	0	0
0	10.2111	0	10.2111	0	0	0	0
0	10.28934	0	10.28934	0	0	0	0
0	10.4408	0	10.4408	0	0	0	0
0	10.5034	0	10.5034	0	0	0	0
0	10.62816	0	10.62816	0	0	0	0
0	10.68026	0	10.68026	0	0	0	0
0	10.78549	0	10.78549	0	0	0	0
0	10.83023	0	10.83023	0	0	0	0
0	10.92196	0	10.92196	0	0	0	0
0	9.354181	0	0	9.354181	0	0	0
0	9.531796	0	0	9.531796	0	0	0
0	9.837642	0	0	9.837642	0	0	0
0	9.949548	0	0	9.949548	0	0	0
0	10.15864	0	0	10.15864	0	0	0
0	10.24063	0	0	10.24063	0	0	0
0	10.39969	0	0	10.39969	0	0	0
0	10.4646	0	0	10.4646	0	0	0
0	10.59535	0	0	10.59535	0	0	0
0	10.64901	0	0	10.64901	0	0	0
0	10.7572	0	0	10.7572	0	0	0
0	10.8034	0	0	10.8034	0	0	0
0	8.970972	0	0	0	8.970972	0	0
0	9.217912	0	0	0	9.217912	0	0
0	9.611998	0	0	0	9.611998	0	0
0	9.750191	0	0	0	9.750191	0	0
0	10.00005	0	0	0	10.00005	0	0
0	10.09532	0	0	0	10.09532	0	0
0	10.27714	0	0	0	10.27714	0	0
0	10.35029	0	0	0	10.35029	0	0
0	10.49484	0	0	0	10.49484	0	0
0	10.5541	0	0	0	10.5541	0	0

0	10.71832	0	0	0	10.71832	0	0
0	10.82104	0	0	0	10.82104	0	0
0	10.86412	0	0	0	10.86412	0	0
0	9.291851	0	0	0	0	9.291851	0
0	9.471781	0	0	0	0	9.471781	0
0	9.787178	0	0	0	0	9.787178	0
0	9.904437	0	0	0	0	9.904437	0
0	10.12288	0	0	0	0	10.12288	0
0	10.20736	0	0	0	0	10.20736	0
0	10.37246	0	0	0	0	10.37246	0
0	10.43925	0	0	0	0	10.43925	0
0	10.57441	0	0	0	0	10.57441	0
0	10.62933	0	0	0	0	10.62933	0
0	10.74249	0	0	0	0	10.74249	0
0	10.78991	0	0	0	0	10.78991	0
0	10.88543	0	0	0	0	10.88543	0
0	10.92641	0	0	0	0	10.92641	0
0	11.00972	0	0	0	0	11.00972	0
0	11.0459	0	0	0	0	11.0459	0
0	11.12076	0	0	0	0	11.12076	0
2.236008	9.355911	0	0	0	0	0	9.355911
2.254349	9.529085	0	0	0	0	0	9.529085
2.285778	9.833333	0	0	0	0	0	9.833333
2.297269	9.946978	0	0	0	0	0	9.946978
2.318437	10.15979	0	0	0	0	0	10.15979
2.326517	10.24221	0	0	0	0	0	10.24221
2.342064	10.40269	0	0	0	0	0	10.40269