SAS Output

CSC 423/324 Final Exam August 10, 2016

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Dataset Variables

Dependent Variable:

X1 – Annual Sales in $1000

Independent Variables:

X2 – Number of sq. ft./1000

X3 – Inventory/$1000

X4 – Amount spent on advertizing/$1000

X5 – Size of sales district/1000 families

X6 – Number of competing stores in district

proc print output of All Green Franchise Dataset

Obs	x1	x2	x3	x4	x5	x6
1	231.0	3.0	294	8.2	8.2	11
2	156.0	2.2	232	7.0	4.1	12
3	10.0	0.5	149	3.0	4.3	15
4	519.0	5.5	600	12.0	16.1	1
5	437.0	4.4	567	10.6	14.1	5
6	487.0	4.8	571	11.8	12.7	4
7	299.0	3.1	512	8.1	10.1	10
8	195.0	2.5	347	7.7	8.4	12
9	20.0	1.2	212	3.3	2.1	15
10	68.0	0.6	102	4.9	4.7	8
11	570.0	5.4	788	17.4	12.3	1
12	428.0	4.2	577	10.5	14.0	7
13	464.0	4.7	535	11.3	15.0	3
14	15.0	0.6	163	2.5	2.5	14
15	65.0	1.2	168	4.7	3.3	11
16	98.0	1.6	151	4.6	2.7	10
17	398.0	4.3	342	5.5	16.0	4
18	161.0	2.6	196	7.2	6.3	13
19	397.0	3.8	453	10.4	13.9	7
20	497.0	5.3	518	11.5	16.3	1
21	528.0	5.6	615	12.3	16.0	0
22	99.0	0.8	278	2.8	6.5	14
23	0.5	1.1	142	3.1	1.6	12
24	347.0	3.6	461	9.6	11.3	6
25	341.0	3.5	382	9.8	11.5	5
26	507.0	5.1	590	12.0	15.7	0
27	400.0	8.6	517	7.0	12.0	8

proc rsquare output

The RSQUARE Procedure

Dependent Variable: x1

R-Square Selection Method

Number of Observations Read 27
Number of Observations Used 27

Number in Model	R-Square	Adjusted R-Square	AIC	Variables in Model
1	0.9095	0.9059	222.0348	x5
1	0.8940	0.8897	226.3124	x3
1	0.8347	0.8281	238.3044	x4
1	0.8322	0.8255	238.7126	x6
1	0.7994	0.7914	243.5291	x2
2	0.9754	0.9733	188.8754	x4 x5
2	0.9678	0.9651	196.1303	x3 x5
2	0.9576	0.9541	203.5513	x3 x6
2	0.9398	0.9347	213.0527	x2 x5
2	0.9377	0.9325	213.9504	x5 x6
2	0.9354	0.9300	214.9560	x2 x4
2	0.9262	0.9201	218.5147	x2 x3
2	0.9246	0.9183	219.0992	x2 x6
2	0.9122	0.9049	223.2091	x3 x4
2	0.9056	0.8977	225.1802	x4 x6
3	0.9883	0.9868	170.7855	x2 x4 x5
3	0.9822	0.9799	182.1653	x3 x4 x5
3	0.9814	0.9789	183.3656	x3 x5 x6
3	0.9775	0.9746	188.4582	x4 x5 x6
3	0.9736	0.9702	192.7283	x2 x3 x5
3	0.9712	0.9674	195.1325	x2 x3 x6
3	0.9609	0.9558	203.3776	x2 x5 x6
3	0.9601	0.9549	203.9137	x2 x4 x6
3	0.9584	0.9530	205.0635	x3 x4 x6
3	0.9481	0.9414	211.0082	x2 x3 x4
4	0.9903	0.9885	167.8675	x2 x4 x5 x6
4	0.9901	0.9883	168.3033	x2 x3 x4 x5
4	0.9865	0.9840	176.7195	x3 x4 x5 x6
4	0.9864	0.9840	176.7671	x2 x3 x5 x6
4	0.9741	0.9694	194.2697	x2 x3 x4 x6
5	0.9932	0.9916	159.9766	x2 x3 x4 x5 x6

Model 1: Variables x5; The REG Procedure; Dependent Variable: x1; Number of Observations Read 27

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	872294	872294	251.28	<.0001
Error	25	86786	3471.43442		
Corrected Total	26	959080			

Root MSE	58.91888	R-Square	0.9095
Dependent Mean	286.57407	Adj R-Sq	0.9059
Coeff Var	20.55974		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|	Variance Inflation
Intercept	1	-58.82320	24.56302	-2.39	0.0244	0
x5	1	35.63518	2.24803	15.85	<.0001	1.00000

Obs	Residual	RStudent	Hat Diag H	Cov Ratio	DFFITS	-------DFBETAS------- Intercept	x5
1	-2.3853	-0.0405	0.0403	1.1305	-0.0083	-0.0058	0.0024
2	68.7190	1.2301	0.0826	1.0466	0.3690	0.3572	-0.2740
3	-84.4081	-1.5329	0.0794	0.9778	-0.4501	-0.4335	0.3287
4	4.0968	0.0717	0.0968	1.2009	0.0235	-0.0097	0.0184
5	-6.6328	-0.1141	0.0653	1.1596	-0.0302	0.0071	-0.0199
6	93.2564	1.6825	0.0502	0.9141	0.3868	-0.0224	0.1981
7	-2.0921	-0.0355	0.0373	1.1270	-0.0070	-0.0027	-0.0006
8	-45.5123	-0.7820	0.0395	1.0742	-0.1585	-0.1058	0.0394
9	3.9893	0.0708	0.1210	1.2339	0.0263	0.0261	-0.0219
10	-40.6621	-0.7098	0.0733	1.1233	-0.1997	-0.1901	0.1405
11	190.5105	4.3319	0.0469	0.3586	0.9613	0.0026	0.4414
12	-12.0693	-0.2076	0.0640	1.1552	-0.0543	0.0122	-0.0353
13	-11.7045	-0.2029	0.0780	1.1729	-0.0590	0.0192	-0.0428
14	-15.2647	-0.2698	0.1123	1.2150	-0.0960	-0.0952	0.0786
15	6.2271	0.1090	0.0965	1.1998	0.0356	0.0350	-0.0280
16	60.6082	1.0936	0.1082	1.1040	0.3809	0.3769	-0.3090
17	-113.3397	-2.1662	0.0950	0.8388	-0.7017	0.2838	-0.5480
18	-4.6784	-0.0800	0.0538	1.1461	-0.0191	-0.0167	0.0106
19	-39.5058	-0.6852	0.0628	1.1138	-0.1774	0.0379	-0.1136
20	-25.0302	-0.4407	0.1006	1.1871	-0.1474	0.0626	-0.1171
21	16.6603	0.2917	0.0950	1.1905	0.0945	-0.0382	0.0738
22	-73.8055	-1.3044	0.0519	0.9979	-0.3051	-0.2638	0.1632
23	2.3069	0.0412	0.1324	1.2504	0.0161	0.0160	-0.0137
24	3.1457	0.0534	0.0408	1.1310	0.0110	0.0019	0.0033
25	-9.9814	-0.1697	0.0418	1.1297	-0.0354	-0.0048	-0.0120
26	6.3509	0.1107	0.0896	1.1906	0.0347	-0.0133	0.0266
27	31.2010	0.5340	0.0448	1.1094	0.1156	0.0059	0.0481

Sum of Residuals	0
Sum of Squared Residuals	86786
Predicted Residual SS (PRESS)	99076

Model 2: Variables x4 x5; The REG Procedure; Dependent Variable: x1; Number of Observations Read 27

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	935480	467740	475.67	<.0001
Error	24	23600	983.32952		
Corrected Total	26	959080			

Root MSE	31.35809	R-Square	0.9754
Dependent Mean	286.57407	Adj R-Sq	0.9733
Coeff Var	10.94240		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|	Variance Inflation
Intercept	1	-111.54066	14.63403	-7.62	<.0001	0
x4	1	21.51735	2.68428	8.02	<.0001	2.71257
x5	1	23.08408	1.97055	11.71	<.0001	2.71257

Obs	Residual	RStudent	Hat Diag H	Cov Ratio	DFFITS	DFBETAS Intercept	DFBETAS x4	DFBETAS x5
1	-23.1910	-0.7507	0.0471	1.1089	-0.1670	-0.0671	-0.0637	0.0772
2	22.2745	0.7489	0.1167	1.1966	0.2722	0.1318	0.1472	-0.2202
3	-42.2729	-1.4602	0.1075	0.9757	-0.5067	-0.4911	0.2591	-0.0128
4	0.6789	0.0223	0.0970	1.2581	0.0073	-0.0028	0.0003	0.0032
5	-5.0287	-0.1625	0.0654	1.2115	-0.0430	0.0086	0.0011	-0.0180
6	51.4682	1.7854	0.0778	0.8347	0.5187	-0.1604	0.3091	-0.1161
7	3.1010	0.0987	0.0377	1.1792	0.0195	0.0077	-0.0021	0.0026
8	-53.0491	-1.8065	0.0404	0.7952	-0.3705	-0.1936	-0.0553	0.0992
9	12.0569	0.4031	0.1220	1.2670	0.1503	0.1391	-0.0138	-0.0647
10	-34.3895	-1.1471	0.0739	1.0383	-0.3241	-0.2879	0.0297	0.1142
11	23.2047	1.0378	0.4899	1.9418	1.0171	-0.4339	0.9672	-0.6807
12	-9.5685	-0.3094	0.0641	1.1990	-0.0810	0.0148	0.0032	-0.0344
13	-13.8665	-0.4529	0.0781	1.2001	-0.1318	0.0401	-0.0041	-0.0548
14	15.0371	0.5052	0.1269	1.2589	0.1926	0.1898	-0.0652	-0.0383
15	-0.7683	-0.0252	0.0973	1.2586	-0.0083	-0.0069	-0.0007	0.0045
16	48.2339	1.6933	0.1106	0.8981	0.5973	0.4824	0.0884	-0.3611
17	21.8500	0.8839	0.3842	1.6691	0.6982	0.1468	-0.6058	0.6459
18	-27.8139	-0.9128	0.0623	1.0890	-0.2352	-0.1325	-0.0868	0.1430
19	-36.1084	-1.2004	0.0630	1.0105	-0.3112	0.0518	0.0168	-0.1342
20	-15.1792	-0.5028	0.1021	1.2246	-0.1696	0.0546	0.0208	-0.0978
21	5.5321	0.1819	0.0969	1.2527	0.0596	-0.0251	0.0085	0.0212
22	0.2456	0.008261	0.1387	1.3191	0.0033	0.0027	-0.0026	0.0014
23	8.4024	0.2822	0.1330	1.2969	0.1105	0.1015	-0.0073	-0.0510
24	-8.8759	-0.2838	0.0431	1.1750	-0.0602	-0.0027	-0.0139	0.0002
25	-23.7962	-0.7698	0.0448	1.1021	-0.1667	-0.0000	-0.0433	0.0014
26	-2.0875	-0.0683	0.0907	1.2488	-0.0216	0.0084	-0.0024	-0.0081
27	83.9103	3.3460	0.0888	0.3794	1.0443	0.3640	-0.7350	0.7714

Sum of Residuals	0
Sum of Squared Residuals	23600
Predicted Residual SS (PRESS)	30122

Model 3: Variables x2 x4 x5; The REG Procedure; Dependent Variable: x1; Number of Observations Read 27

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	947866	315955	648.02	<.0001
Error	23	11214	487.56996		
Corrected Total	26	959080			

Root MSE	22.08099	R-Square	0.9883
Dependent Mean	286.57407	Adj R-Sq	0.9868
Coeff Var	7.70516		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|	Variance Inflation
Intercept	1	-108.58676	10.32129	-10.52	<.0001	0
x2	1	20.53577	4.07443	5.04	<.0001	3.58026
x4	1	19.07163	1.95145	9.77	<.0001	2.89135
x5	1	17.77745	1.74181	10.21	<.0001	4.27435

Obs	Residual	RStudent	Hat Diag H	Cov Ratio	DFFITS	DFBETAS Intercept	x2	x4	x5
1	-24.1830	-1.1287	0.0472	1.0010	-0.2512	-0.1014	-0.0103	-0.0901	0.0987
2	13.0191	0.6214	0.1236	1.2715	0.2334	0.1128	0.0552	0.1051	-0.1795
3	-25.3390	-1.2454	0.1306	1.0463	-0.4827	-0.4122	0.2032	0.1663	-0.1316
4	-0.4364	-0.0203	0.0971	1.3229	-0.0067	0.0026	-0.0002	-0.0002	-0.0022
5	2.4081	0.1106	0.0698	1.2814	0.0303	-0.0063	-0.0077	0.0012	0.0144
6	46.1963	2.3955	0.0801	0.5139	0.7068	-0.2084	0.1183	0.3727	-0.1957
7	9.8935	0.4496	0.0414	1.2015	0.0935	0.0334	-0.0280	-0.0022	0.0264
8	-43.9348	-2.2023	0.0471	0.5650	-0.4895	-0.2259	0.1848	-0.1115	-0.0150
9	3.6748	0.1744	0.1277	1.3619	0.0667	0.0611	0.0141	-0.0093	-0.0309
10	-12.7397	-0.6037	0.1118	1.2594	-0.2142	-0.1474	0.1246	-0.0155	-0.0264
11	17.1847	1.0977	0.4929	1.9031	1.0821	-0.4548	0.0834	0.9730	-0.6256
12	1.2002	0.0552	0.0735	1.2887	0.0156	-0.0030	-0.0056	0.0008	0.0083
13	-6.1025	-0.2828	0.0830	1.2839	-0.0851	0.0262	0.0206	-0.0076	-0.0398
14	19.1426	0.9256	0.1282	1.1761	0.3550	0.3453	-0.0366	-0.1067	-0.0338
15	0.6416	0.0299	0.0975	1.3234	0.0098	0.0082	-0.0004	0.0009	-0.0040
16	38.0009	1.9408	0.1191	0.7207	0.7136	0.5655	0.1901	0.0513	-0.4462
17	28.9498	1.7498	0.3883	1.1596	1.3940	0.2830	-0.1427	-1.1299	1.1083
18	-33.1199	-1.6028	0.0645	0.8210	-0.4210	-0.2371	-0.0790	-0.1281	0.2481
19	-17.9006	-0.8444	0.0898	1.1552	-0.2652	0.0451	0.1448	-0.0244	-0.1638
20	-12.3489	-0.5819	0.1028	1.2525	-0.1969	0.0639	0.0156	0.0194	-0.0996
21	2.5663	0.1197	0.0976	1.3204	0.0394	-0.0163	0.0034	0.0046	0.0091
22	22.2042	1.1147	0.1776	1.1660	0.5180	0.3645	-0.2425	-0.2904	0.3034
23	-1.0686	-0.0510	0.1402	1.3887	-0.0206	-0.0187	-0.0047	0.0025	0.0102
24	-2.3148	-0.1050	0.0466	1.2504	-0.0232	-0.0006	0.0063	-0.0066	-0.0038
25	-13.6310	-0.6260	0.0532	1.1756	-0.1483	0.0033	0.0588	-0.0489	-0.0346
26	2.8889	0.1344	0.0927	1.3123	0.0430	-0.0169	-0.0063	0.0062	0.0165
27	-14.8516	-2.0392	0.8763	4.8305	-5.4265	-0.8931	-5.1444	2.4566	2.0933

Sum of Residuals	0
Sum of Squared Residuals	11214
Predicted Residual SS (PRESS)	29675

Model 4: Variables x2 x4 x5 x6; The REG Procedure; Dependent Variable: x1; Number of Observations Read 27

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	949734	237433	558.86	<.0001
Error	22	9346.72938	424.85134		
Corrected Total	26	959080			

Root MSE	20.61192	R-Square	0.9903
Dependent Mean	286.57407	Adj R-Sq	0.9885
Coeff Var	7.19253		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|	Variance Inflation
Intercept	1	-39.56834	34.30144	-1.15	0.2611	0
x2	1	20.41058	3.80383	5.37	<.0001	3.58114
x4	1	16.95440	2.08282	8.14	<.0001	3.77999
x5	1	15.70167	1.90367	8.25	<.0001	5.85936
x6	1	-4.04677	1.93024	-2.10	0.0478	5.46515

Obs	Residual	RStudent	Hat Diag H	Cov Ratio	DFFITS
1	-13.9287	-0.7055	0.1035	1.2520	-0.2397
2	16.1687	0.8347	0.1289	1.2305	0.3211
3	-18.3158	-0.9664	0.1570	1.2043	-0.4171
4	-5.8928	-0.2972	0.1130	1.3931	-0.1061
5	5.8854	0.2908	0.0763	1.3389	0.0836
6	45.3115	2.5674	0.0805	0.3505	0.7597
7	19.8457	1.0124	0.0945	1.0981	0.3270
8	-30.3398	-1.6546	0.1461	0.8008	-0.6843
9	6.8542	0.3500	0.1331	1.4139	0.1371
10	-29.1783	-1.7123	0.2565	0.8830	-1.0057
11	15.2609	1.0438	0.4948	1.9398	1.0331
12	12.3267	0.6360	0.1398	1.3335	0.2564
13	-7.3309	-0.3642	0.0838	1.3346	-0.1101
14	17.3366	0.8978	0.1300	1.2015	0.3470
15	-6.9111	-0.3518	0.1280	1.4052	-0.1348
16	24.9944	1.3929	0.2097	1.0265	0.7175
17	21.5140	1.3973	0.4179	1.3898	1.1839
18	-20.8834	-1.1008	0.1447	1.1145	-0.4528
19	-7.2435	-0.3738	0.1506	1.4371	-0.1574
20	-18.4738	-0.9551	0.1229	1.1631	-0.3575
21	-6.4968	-0.3333	0.1416	1.4318	-0.1354
22	29.3615	1.6602	0.2050	0.8568	0.8431
23	-11.5034	-0.6145	0.1985	1.4402	-0.3058
24	-2.8203	-0.1370	0.0467	1.3178	-0.0303
25	-17.3572	-0.8638	0.0606	1.1281	-0.2194
26	-7.4947	-0.3868	0.1504	1.4335	-0.1628
27	-10.6893	-1.5847	0.8855	6.2676	-4.4078

Model 4: Variables x2 x4 x5 x6 Output Statistics

	DFBETAS				
Obs	Intercept	x2	x4	x5	x6
1	0.1514	-0.0094	-0.1365	-0.0377	-0.1768
2	-0.0199	0.0754	0.1554	-0.1727	0.0652
3	0.0729	0.1574	0.0317	-0.1776	-0.1711
4	-0.0276	-0.0025	0.0164	-0.0072	0.0398
5	-0.0280	-0.0198	0.0146	0.0452	0.0244
6	-0.0101	0.1260	0.3229	-0.2077	-0.0548
7	-0.2134	-0.0611	0.1143	0.1797	0.2450
8	0.4902	0.1378	-0.3505	-0.3032	-0.5633
9	0.0080	0.0287	-0.0030	-0.0387	0.0277
10	-0.8533	0.3981	0.3242	0.3229	0.7554
11	-0.0590	0.0784	0.7791	-0.5431	-0.0654
12	-0.1794	-0.0636	0.0943	0.1763	0.1766
13	-0.0009	0.0267	-0.0033	-0.0381	0.0108
14	0.1328	-0.0361	-0.1101	-0.0490	-0.0402
15	-0.0906	0.0058	0.0220	0.0754	0.0659
16	0.5729	0.1366	-0.1946	-0.5340	-0.4716
17	0.3675	-0.1218	-0.9618	0.6110	-0.3151
18	0.2757	-0.0620	-0.2439	-0.0231	-0.3371
19	0.1018	0.0648	-0.0583	-0.1161	-0.1000
20	-0.1089	0.0282	0.0983	-0.0660	0.1445
21	-0.0593	-0.0084	0.0252	0.0170	0.0754
22	-0.1409	-0.3625	-0.2352	0.5529	0.3084
23	-0.2245	-0.0558	0.1072	0.1949	0.1657
24	-0.0018	0.0083	-0.0067	-0.0033	0.0016
25	-0.0725	0.0826	-0.0219	-0.0010	0.0768
26	-0.0827	0.0203	0.0329	0.0106	0.1008
27	0.2303	-4.1632	1.5172	1.2100	-0.4512

Sum of Residuals	0
Sum of Squared Residuals	9346.72938
Predicted Residual SS (PRESS)	22814

Model 5: Variables x2 x3 x4 x5 x6; The REG Procedure; Dependent Variable: x1; Number of Observations Read 27

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	5	952601	190520	617.44	<.0001
Error	21	6479.84600	308.56410		
Corrected Total	26	959080			

Root MSE	17.56599	R-Square	0.9932
Dependent Mean	286.57407	Adj R-Sq	0.9916
Coeff Var	6.12965		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|	Variance Inflation
Intercept	1	-19.10325	29.99365	-0.64	0.5311	0
x2	1	16.17775	3.52663	4.59	0.0002	4.23830
x3	1	0.17444	0.05723	3.05	0.0061	10.08509
x4	1	11.53991	2.51120	4.60	0.0002	7.56554
x5	1	13.60085	1.76268	7.72	<.0001	6.91684
x6	1	-5.30493	1.69599	-3.13	0.0051	5.80924

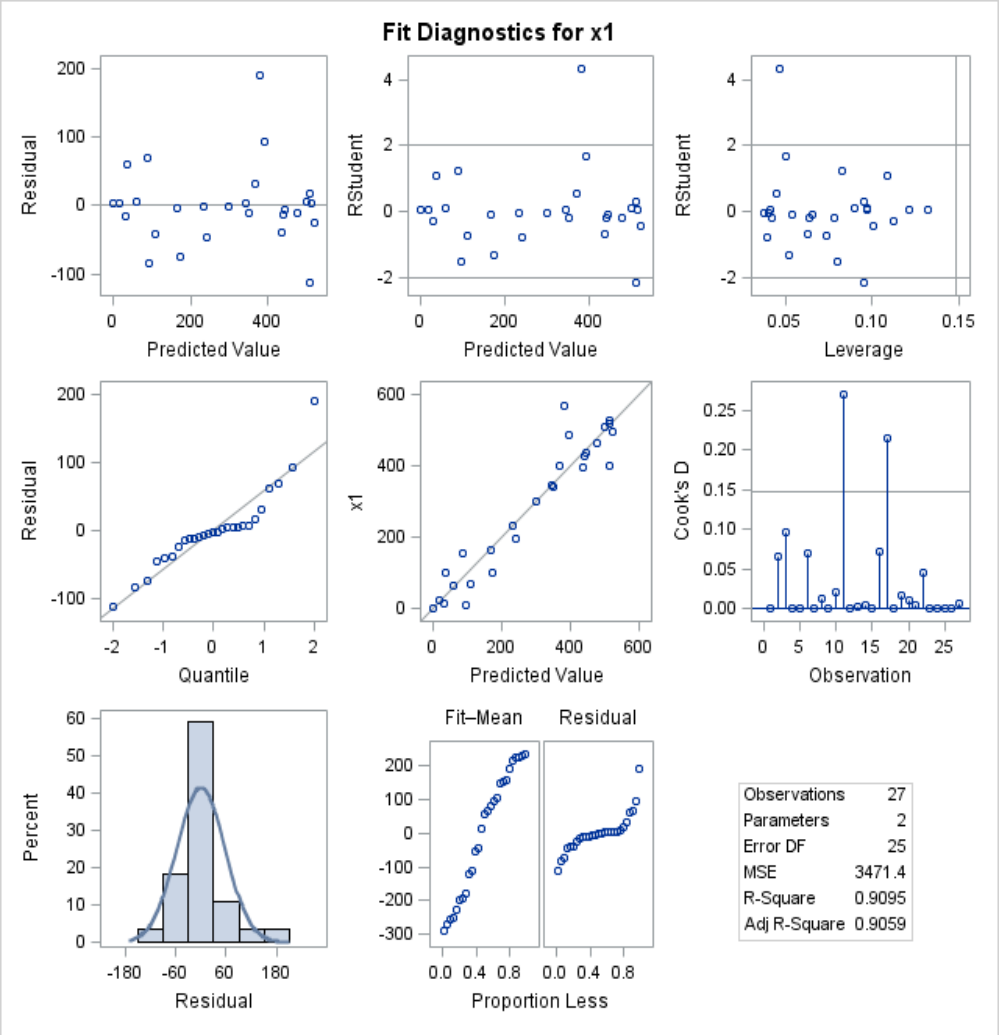
Obs	Residual	RStudent	Hat Diag H	Cov Ratio	DFFITS
1	2.4849	0.1542	0.1975	1.6580	0.0765
2	26.1587	1.7002	0.1637	0.7129	0.7523
3	-18.5064	-1.1567	0.1570	1.0780	-0.4993
4	-7.6855	-0.4560	0.1142	1.4218	-0.1637
5	-1.5562	-0.0909	0.0956	1.4781	-0.0296
6	41.1633	2.8322	0.0865	0.1940	0.8715
7	0.8469	0.0533	0.2204	1.7174	0.0283
8	-26.3167	-1.6980	0.1517	0.7042	-0.7180
9	-4.3606	-0.2675	0.1769	1.5937	-0.1240
10	-18.4263	-1.2690	0.2968	1.1975	-0.8245
11	1.5054	0.1263	0.5608	3.0369	0.1427
12	4.0589	0.2469	0.1636	1.5733	0.1092
13	-4.7560	-0.2769	0.0861	1.4331	-0.0850
14	7.3802	0.4509	0.1646	1.5096	0.2001
15	-5.3819	-0.3212	0.1288	1.4915	-0.1235
16	28.1220	1.9161	0.2131	0.6195	0.9971
17	28.0174	2.3301	0.4326	0.5590	2.0347
18	4.0424	0.2816	0.3614	2.0494	0.2119
19	3.6745	0.2274	0.1922	1.6333	0.1109
20	-9.0962	-0.5535	0.1535	1.4452	-0.2357
21	-10.3267	-0.6272	0.1467	1.3973	-0.2601
22	10.2188	0.7036	0.3328	1.7346	0.4970
23	-16.8385	-1.0818	0.2084	1.2036	-0.5551
24	-5.1962	-0.2966	0.0487	1.3720	-0.0671
25	-6.1309	-0.3611	0.1046	1.4393	-0.1234
26	-11.3346	-0.6935	0.1556	1.3761	-0.2977
27	-11.7605	-2.1458	0.8859	3.3893	-5.9805

Model 5: Variables x2 x4 x5 x6 Output Statistics

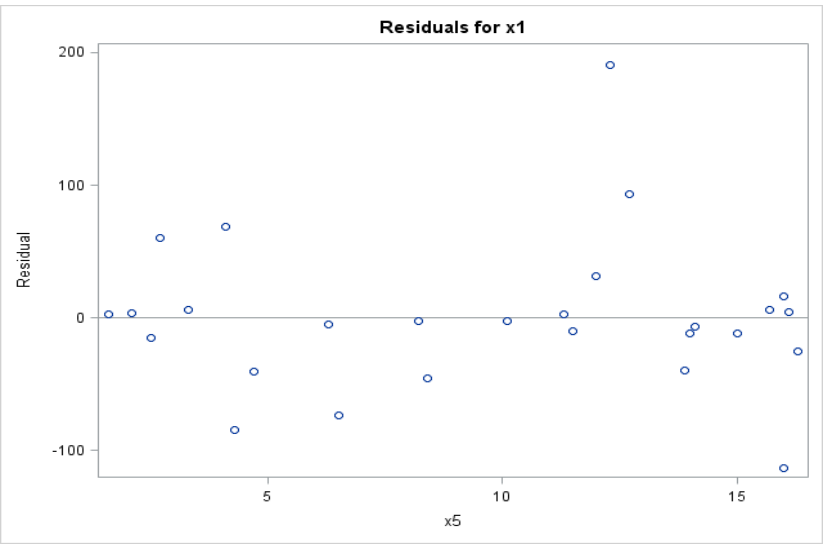
Obs	DFBETAS Intercept	x2	x3	x4	x5	x6
1	-0.0459	0.0228	-0.0528	0.0596	0.0286	0.0525
2	-0.1179	0.2807	-0.3469	0.4737	-0.1947	0.2159
3	0.0841	0.1750	-0.0045	0.0300	-0.1939	-0.1975
4	-0.0450	0.0028	-0.0162	0.0292	-0.0038	0.0633
5	0.0057	0.0110	-0.0133	0.0061	-0.0079	-0.0042
6	0.0404	0.0377	0.2296	0.0902	-0.3013	-0.1147
7	-0.0070	-0.0116	0.0214	-0.0106	0.0010	0.0083
8	0.5230	0.0759	0.1385	-0.3531	-0.3415	-0.5963
9	-0.0199	0.0036	-0.0618	0.0453	0.0521	-0.0060
10	-0.5658	0.1592	0.3039	-0.0403	0.1077	0.4844
11	0.0035	-0.0099	0.0489	0.0368	-0.0840	-0.0201
12	-0.0595	-0.0394	0.0417	-0.0033	0.0476	0.0573
13	0.0025	0.0132	0.0139	-0.0116	-0.0322	0.0046
14	0.0869	-0.0531	0.0917	-0.1048	-0.0590	-0.0423
15	-0.0785	0.0010	0.0098	0.0073	0.0596	0.0559
16	0.7416	0.2228	-0.1262	-0.1004	-0.6283	-0.5999
17	0.5209	-0.0411	-0.3757	-0.8825	1.0968	-0.4249
18	-0.1163	0.0815	-0.1640	0.1671	0.0704	0.1367
19	-0.0735	-0.0168	-0.0516	0.0622	0.0869	0.0731
20	-0.0390	-0.0262	0.1054	-0.0335	-0.0770	0.0571
21	-0.1200	0.0045	-0.0486	0.0679	0.0486	0.1499
22	0.0054	-0.2754	0.3080	-0.2948	0.1150	0.0634
23	-0.4147	-0.0432	-0.1212	0.2199	0.3652	0.3143
24	-0.0068	0.0218	-0.0135	-0.0007	-0.0014	0.0067
25	-0.0123	0.0010	0.0800	-0.0632	-0.0317	0.0124
26	-0.1570	0.0549	-0.0541	0.0801	0.0388	0.1890
27	0.2760	-5.1411	-0.1271	1.5447	1.5604	-0.5627

Sum of Residuals	0
Sum of Squared Residuals	6479.84600
Predicted Residual SS (PRESS)	21050

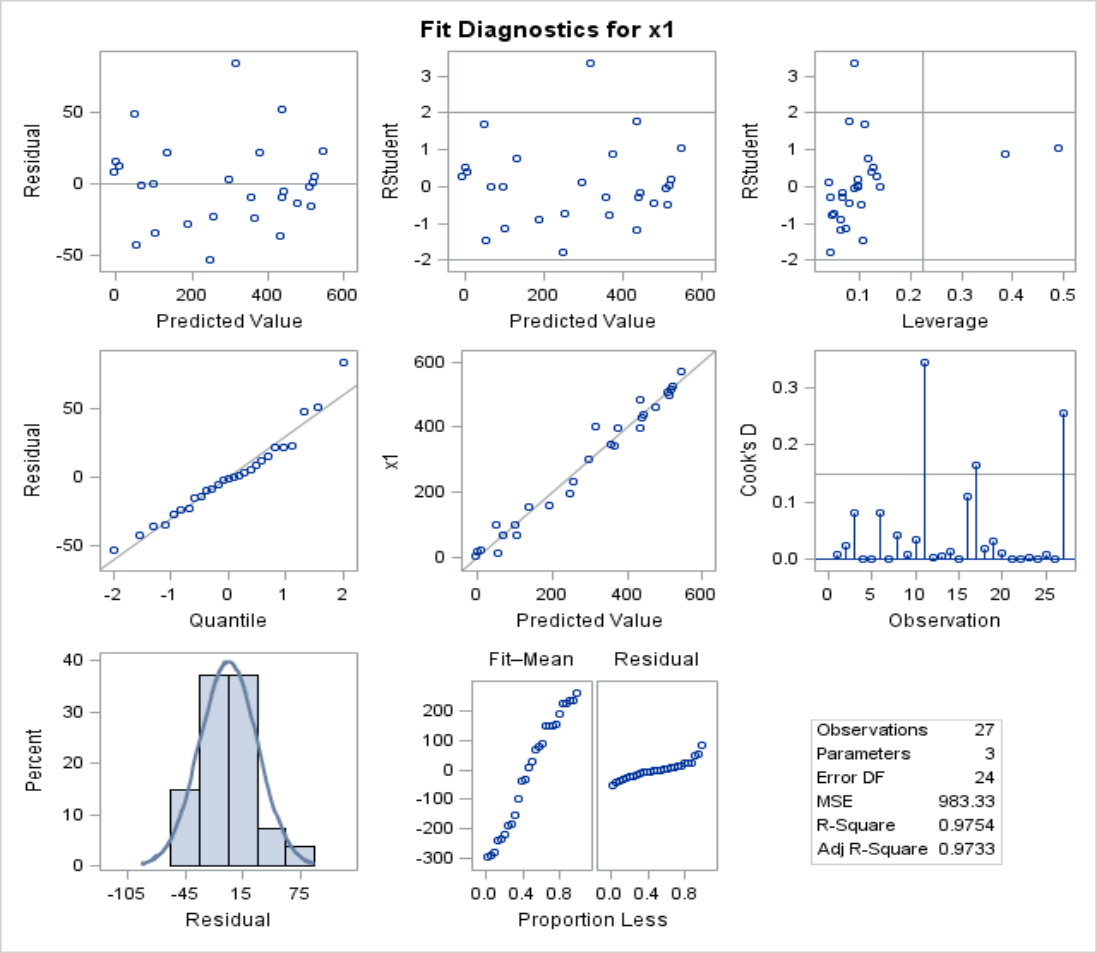
Model 1: x5 Diagnostic Plots



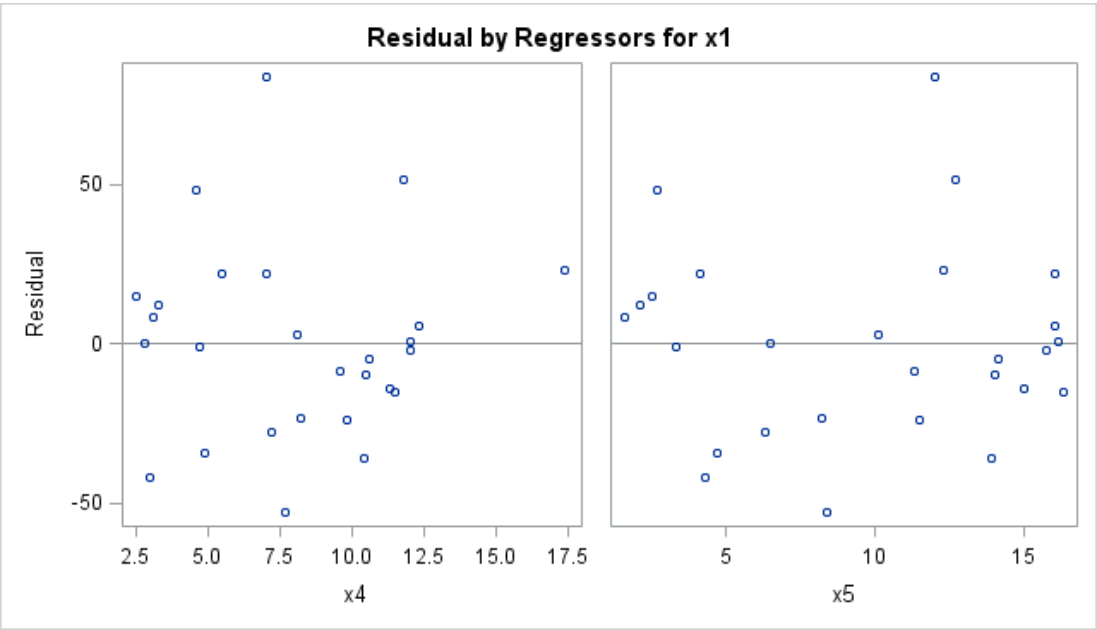
Model 1: x5 Partial Residual Plot



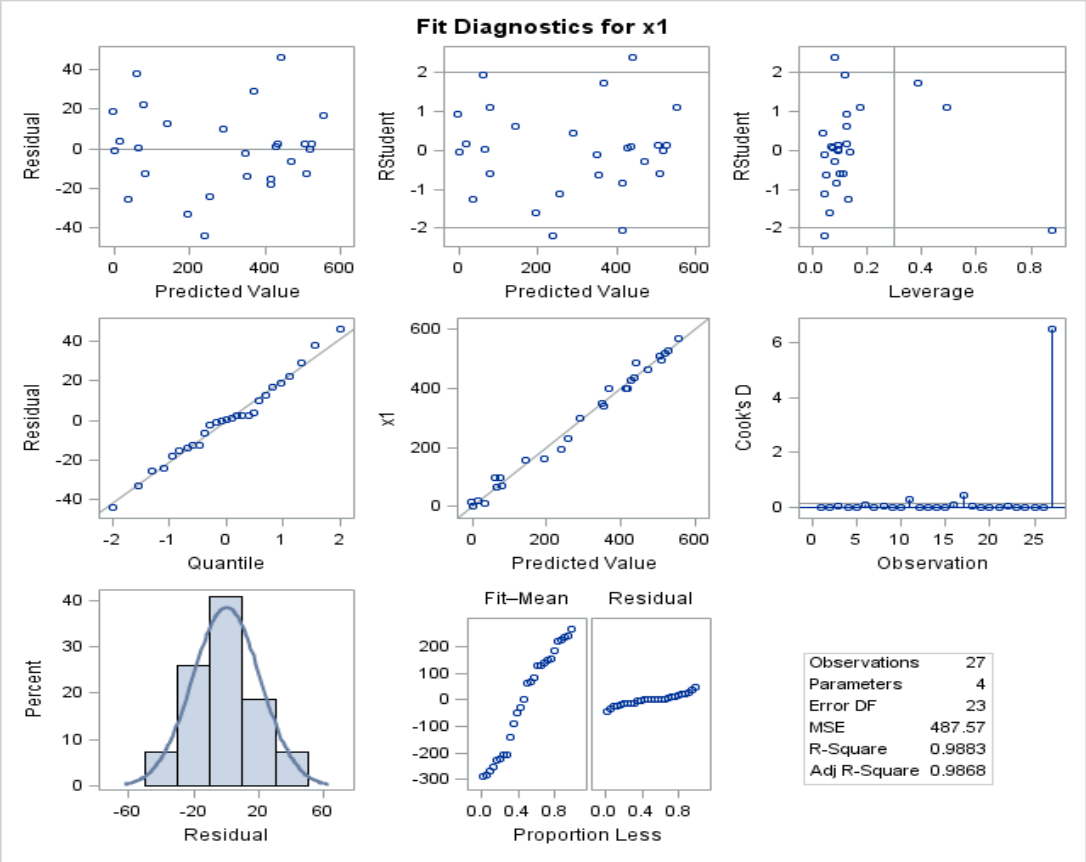
Model 2: x4 x5 Diagnostic Plots



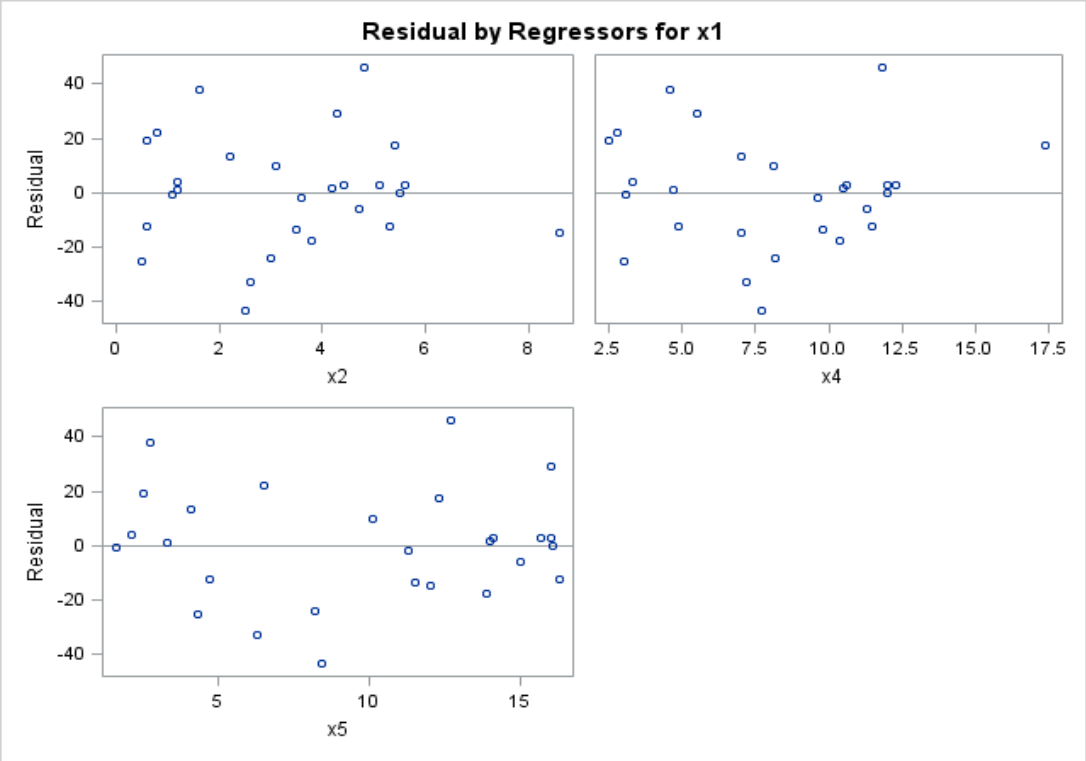
Model 2: x4 x5 Partial Residual Plots



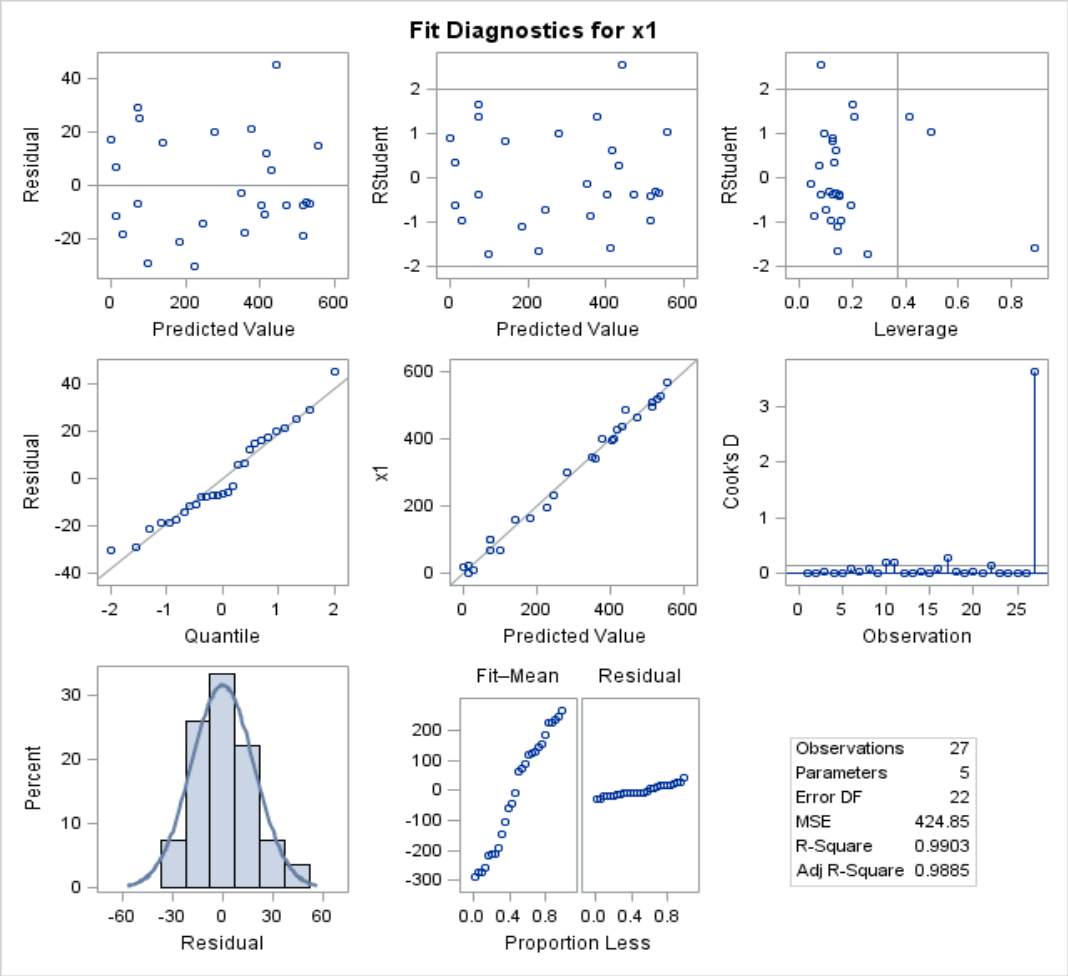
Model 3: x2 x4 x5 Diagnostic Plots



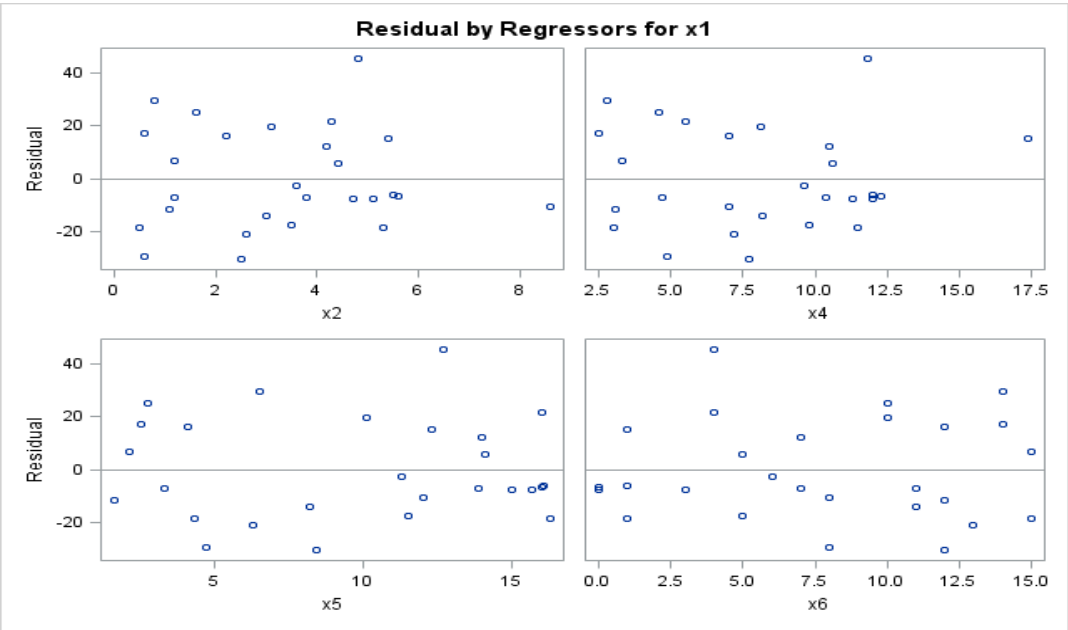
Model 3: x2 x4 x5 Partial Residual Plots



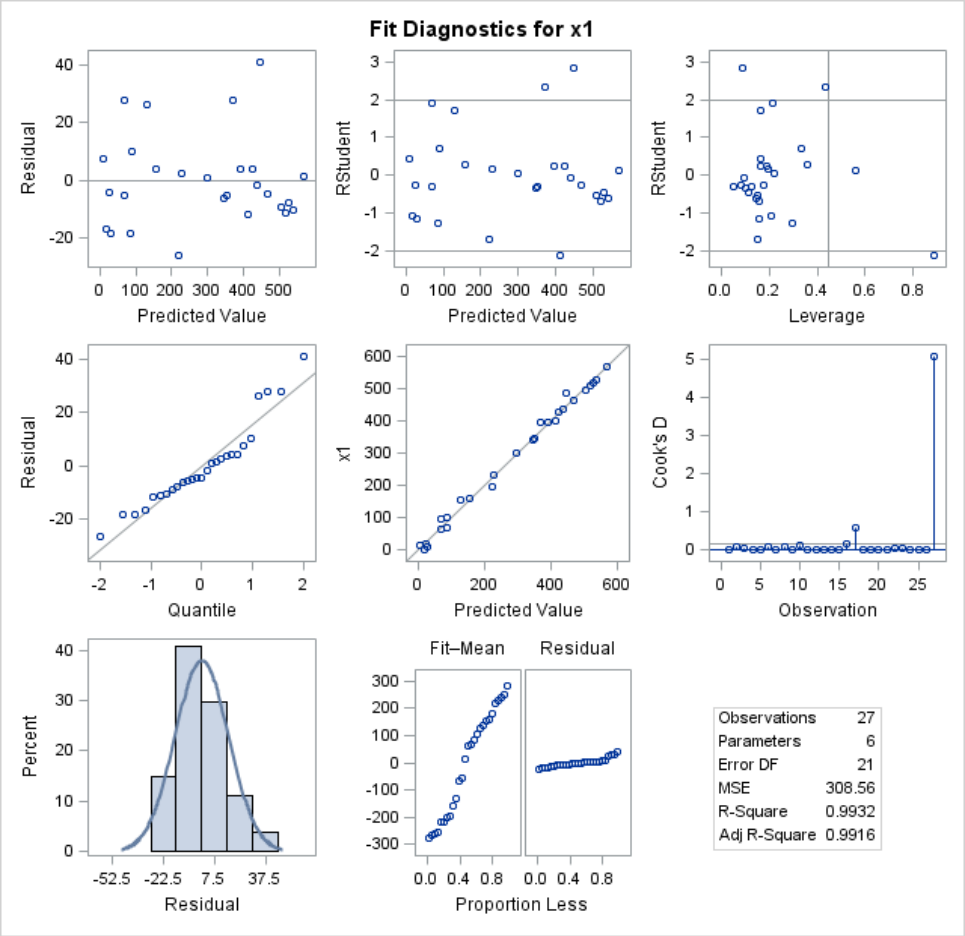
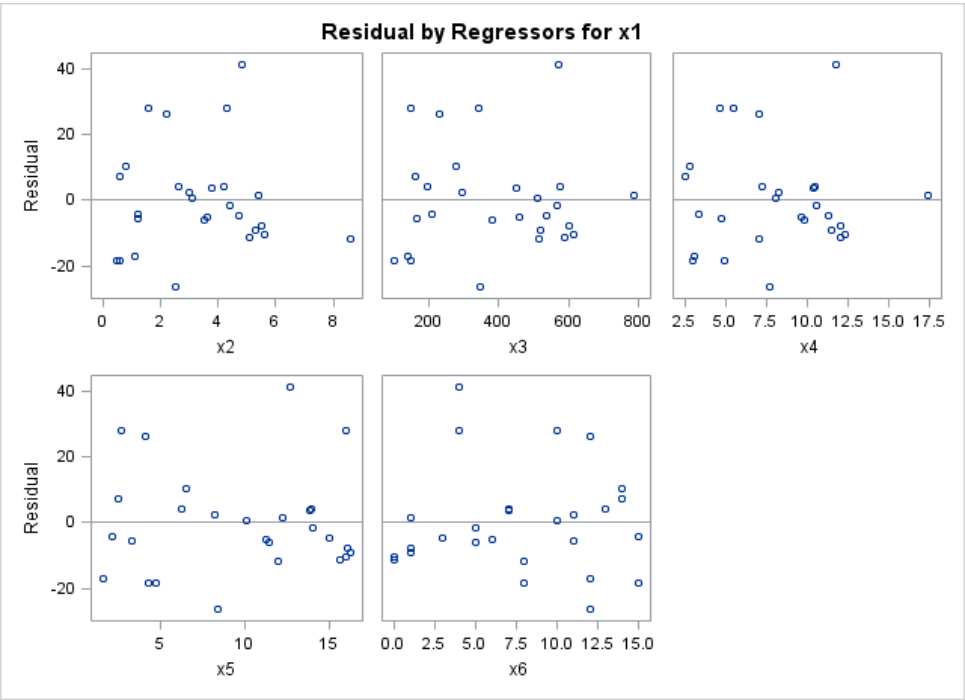
Model 4: x2 x4 x5 x6 Diagnostic Plots



Model 4: x2 x4 x5 x6 Partial Residual Plots



Model 4: x2 x3 x4 x5 x6 Diagnostic Plots



Model 4: x2 x3 x4 x5 x6 Partial Residual Plots