The PRINCOMP Procedure

Observations	30
Variables	6

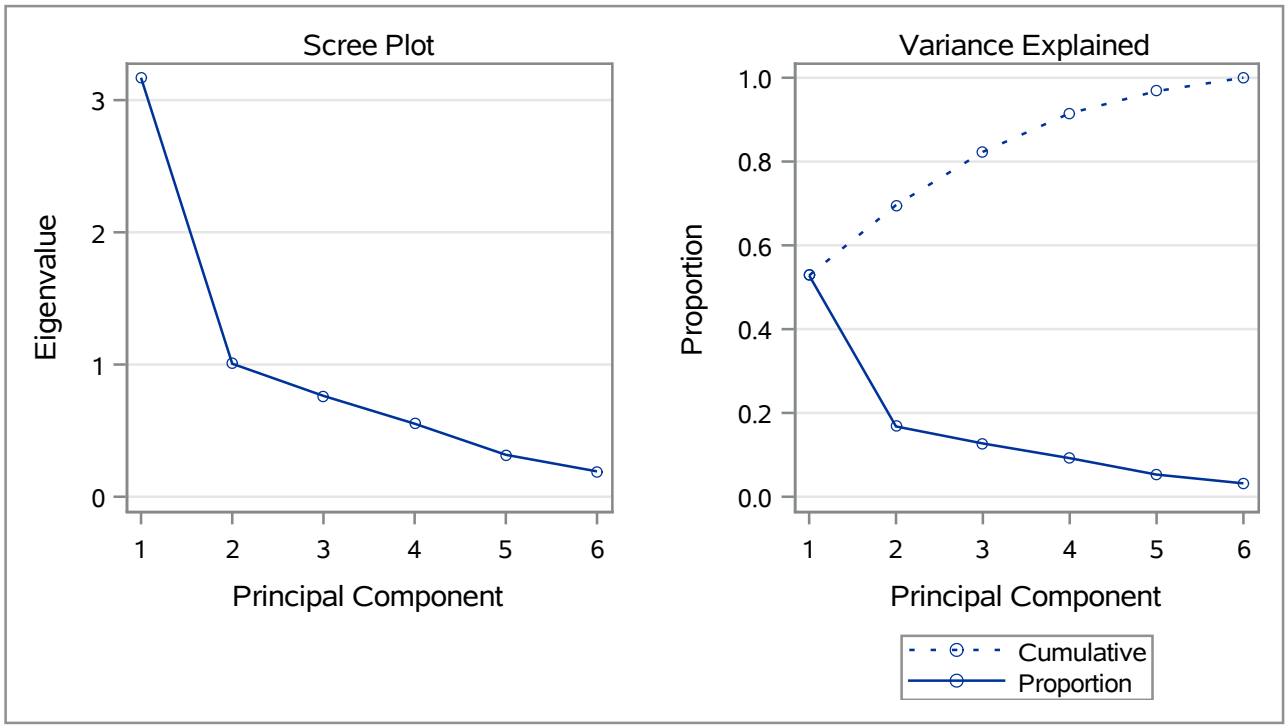
Simple Statistics						
	X1	**X2**	**X3**	**X4**	**X5**	**X6**
Mean	0.000000000	0.000000000	0.000000000	0.000000000	0.000000000	0.000000000
StD	1.000000000	1.000000000	1.000000000	1.000000000	1.000000000	1.000000000

Correlation Matrix						
	X1	**X2**	**X3**	**X4**	**X5**	**X6**
X1	1.0000	0.5583	0.5967	0.6692	0.1877	0.2246
X2	0.5583	1.0000	0.4933	0.4455	0.1472	0.3433
X3	0.5967	0.4933	1.0000	0.6403	0.1160	0.5316
X4	0.6692	0.4455	0.6403	1.0000	0.3769	0.5742
X5	0.1877	0.1472	0.1160	0.3769	1.0000	0.2833
X6	0.2246	0.3433	0.5316	0.5742	0.2833	1.0000

Eigenvalues of the Correlation Matrix				
	Eigenvalue	**Difference**	**Proportion**	**Cumulative**
1	3.16922321	2.16287646	0.5282	0.5282
2	1.00634675	0.24343802	0.1677	0.6959
3	0.76290873	0.21039227	0.1272	0.8231
4	0.55251646	0.23526997	0.0921	0.9152
5	0.31724648	0.12548811	0.0529	0.9680
6	0.19175838		0.0320	1.0000

Eigenvectors						
	Prin1	**Prin2**	**Prin3**	**Prin4**	**Prin5**	**Prin6**
X1	0.439375	-.312642	0.445167	-.316019	-.191521	0.611949
X2	0.394711	-.308751	0.217414	0.814847	-.037686	-.190294
X3	0.461401	-.217087	-.271981	-.224796	0.775648	-.117671
X4	0.492658	0.115532	0.005605	-.365108	-.460364	-.631404
X5	0.224813	0.802247	0.457246	0.099947	0.288875	0.057847
X6	0.380801	0.320706	-.686643	0.205742	-.254728	0.416465

The PRINCOMP Procedure



The REG Procedure
Model: MODEL1
Dependent Variable: Y

Number of Observations Read	30
Number of Observations Used	30

Stepwise Selection: Step 1

Variable Prin1 Entered: R-Square = 0.4571 and C(p) = 20.6977

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	1964.11131	1964.11131	23.57	<.0001
Error	28	2332.85535	83.31626		
Corrected Total	29	4296.96667			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	64.63333	1.66650	125324	1504.20	<.0001
Prin1	4.62283	0.95212	1964.11131	23.57	<.0001

Bounds on condition number: 1, 1

Stepwise Selection: Step 2

Variable Prin4 Entered: R-Square = 0.5461 and C(p) = 15.0426

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	2346.53131	1173.26565	16.24	<.0001
Error	27	1950.43536	72.23835		
Corrected Total	29	4296.96667			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	64.63333	1.55176	125324	1734.87	<.0001
Prin1	4.62283	0.88656	1964.11131	27.19	<.0001
Prin4	-4.88538	2.12330	382.41999	5.29	0.0294

Bounds on condition number: 1, 4

The REG Procedure
Model: MODEL1
Dependent Variable: Y

Stepwise Selection: Step 3

Variable Prin3 Entered: R-Square = 0.6339 and C(p) = 9.4905

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	2723.81029	907.93676	15.01	<.0001
Error	26	1573.15637	60.50601		
Corrected Total	29	4296.96667			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	64.63333	1.42016	125324	2071.27	<.0001
Prin1	4.62283	0.81138	1964.11131	32.46	<.0001
Prin3	4.12949	1.65373	377.27898	6.24	0.0192
Prin4	-4.88538	1.94325	382.41999	6.32	0.0185

Bounds on condition number: 1, 9

Stepwise Selection: Step 4

Variable Prin2 Entered: R-Square = 0.7127 and C(p) = 4.7129

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	3062.39678	765.59919	15.50	<.0001
Error	25	1234.56989	49.38280		
Corrected Total	29	4296.96667			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	64.63333	1.28300	125324	2537.81	<.0001
Prin1	4.62283	0.73301	1964.11131	39.77	<.0001
Prin2	-3.40614	1.30081	338.58649	6.86	0.0148
Prin3	4.12949	1.49401	377.27898	7.64	0.0106
Prin4	-4.88538	1.75556	382.41999	7.74	0.0101

Bounds on condition number: 1, 16

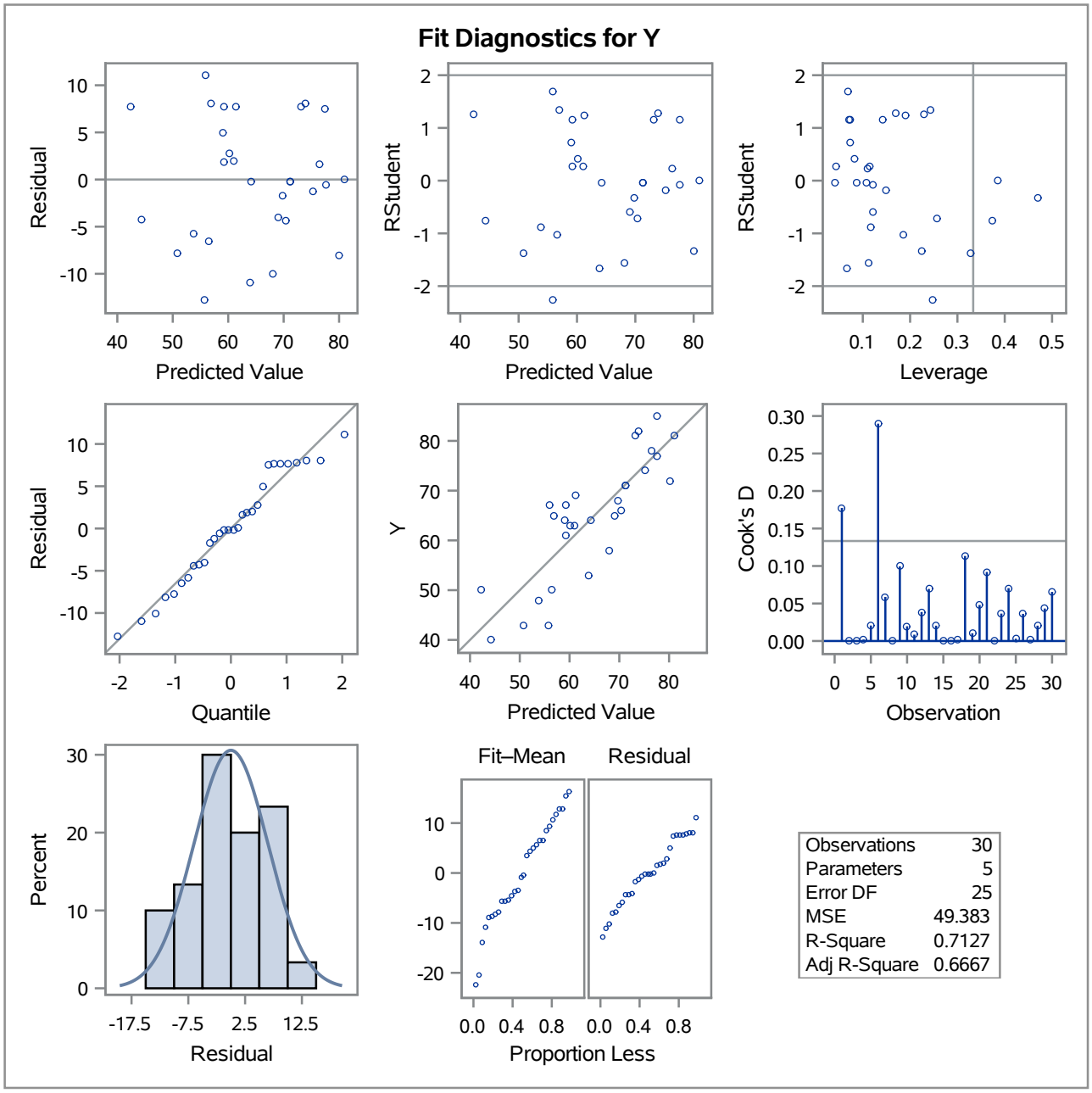
All variables left in the model are significant at the 0.1500 level.

No other variable met the 0.1500 significance level for entry into the model.

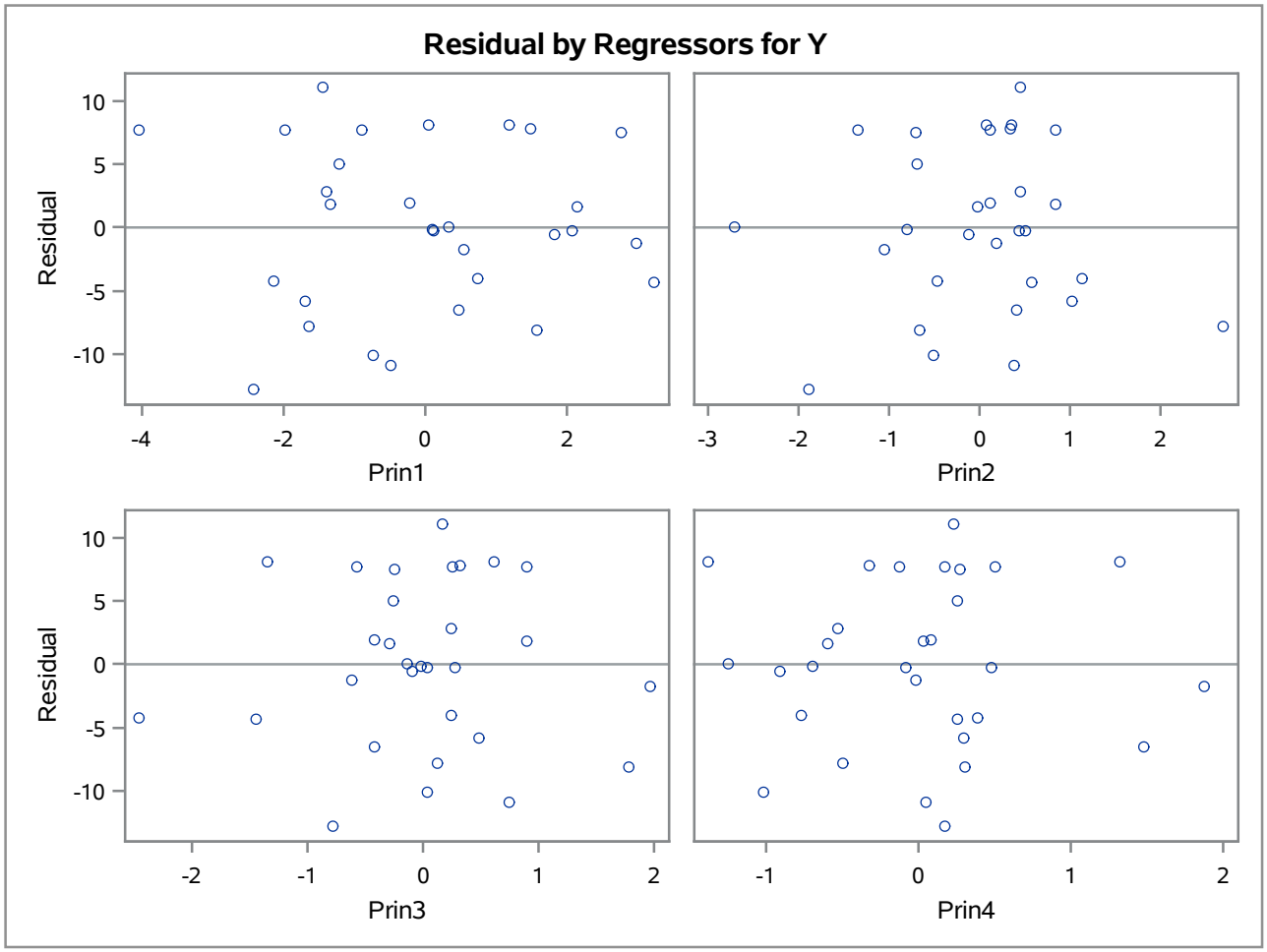
The REG Procedure
Model: MODEL1
Dependent Variable: Y

Summary of Stepwise Selection								
Step	Variable Entered	Variable Removed	Number Vars In	Partial R-Square	Model R-Square	C(p)	F Value	Pr > F
1	Prin1		1	0.4571	0.4571	20.6977	23.57	<.0001
2	Prin4		2	0.0890	0.5461	15.0426	5.29	0.0294
3	Prin3		3	0.0878	0.6339	9.4905	6.24	0.0192
4	Prin2		4	0.0788	0.7127	4.7129	6.86	0.0148

The REG Procedure
Model: MODEL1
Dependent Variable: Y



The REG Procedure
Model: MODEL1
Dependent Variable: Y



The REG Procedure
Model: MODEL1
Dependent Variable: Y

Number of Observations Read	30
Number of Observations Used	30

Maximum R-Square Improvement: Step 1

Variable Prin1 Entered: R-Square = 0.4571 and C(p) = 20.6977

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	1964.11131	1964.11131	23.57	<.0001
Error	28	2332.85535	83.31626		
Corrected Total	29	4296.96667			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	64.63333	1.66650	125324	1504.20	<.0001
Prin1	4.62283	0.95212	1964.11131	23.57	<.0001

Bounds on condition number: 1, 1

The above model is the best 1-variable model found.

Maximum R-Square Improvement: Step 2

Variable Prin4 Entered: R-Square = 0.5461 and C(p) = 15.0426

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	2346.53131	1173.26565	16.24	<.0001
Error	27	1950.43536	72.23835		
Corrected Total	29	4296.96667			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	64.63333	1.55176	125324	1734.87	<.0001
Prin1	4.62283	0.88656	1964.11131	27.19	<.0001
Prin4	-4.88538	2.12330	382.41999	5.29	0.0294

Bounds on condition number: 1, 4

The above model is the best 2-variable model found.

The REG Procedure
Model: MODEL1
Dependent Variable: Y

Maximum R-Square Improvement: Step 3

Variable Prin3 Entered: R-Square = 0.6339 and C(p) = 9.4905

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	2723.81029	907.93676	15.01	<.0001
Error	26	1573.15637	60.50601		
Corrected Total	29	4296.96667			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	64.63333	1.42016	125324	2071.27	<.0001
Prin1	4.62283	0.81138	1964.11131	32.46	<.0001
Prin3	4.12949	1.65373	377.27898	6.24	0.0192
Prin4	-4.88538	1.94325	382.41999	6.32	0.0185

Bounds on condition number: 1, 9

The above model is the best 3-variable model found.

Maximum R-Square Improvement: Step 4

Variable Prin2 Entered: R-Square = 0.7127 and C(p) = 4.7129

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	3062.39678	765.59919	15.50	<.0001
Error	25	1234.56989	49.38280		
Corrected Total	29	4296.96667			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	64.63333	1.28300	125324	2537.81	<.0001
Prin1	4.62283	0.73301	1964.11131	39.77	<.0001
Prin2	-3.40614	1.30081	338.58649	6.86	0.0148
Prin3	4.12949	1.49401	377.27898	7.64	0.0106
Prin4	-4.88538	1.75556	382.41999	7.74	0.0101

Bounds on condition number: 1, 16

The above model is the best 4-variable model found.

The REG Procedure
Model: MODEL1
Dependent Variable: Y

Maximum R-Square Improvement: Step 5

Variable Prin6 Entered: R-Square = 0.7266 and C(p) = 5.5158

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	5	3122.19669	624.43934	12.76	<.0001
Error	24	1174.76997	48.94875		
Corrected Total	29	4296.96667			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	64.63333	1.27735	125324	2560.31	<.0001
Prin1	4.62283	0.72979	1964.11131	40.13	<.0001
Prin2	-3.40614	1.29508	338.58649	6.92	0.0147
Prin3	4.12949	1.48743	377.27898	7.71	0.0105
Prin4	-4.88538	1.74783	382.41999	7.81	0.0100
Prin6	3.27925	2.96684	59.79991	1.22	0.2800

Bounds on condition number: 1, 25

The above model is the best 5-variable model found.

Maximum R-Square Improvement: Step 6

Variable Prin5 Entered: R-Square = 0.7326 and C(p) = 7.0000

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	6	3147.96634	524.66106	10.50	<.0001
Error	23	1149.00032	49.95654		
Corrected Total	29	4296.96667			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	64.63333	1.29043	125324	2508.66	<.0001
Prin1	4.62283	0.73726	1964.11131	39.32	<.0001
Prin2	-3.40614	1.30835	338.58649	6.78	0.0159
Prin3	4.12949	1.50266	377.27898	7.55	0.0115
Prin4	-4.88538	1.76573	382.41999	7.66	0.0110
Prin5	1.67362	2.33023	25.76965	0.52	0.4799
Prin6	3.27925	2.99723	59.79991	1.20	0.2852

The REG Procedure
Model: MODEL1
Dependent Variable: Y

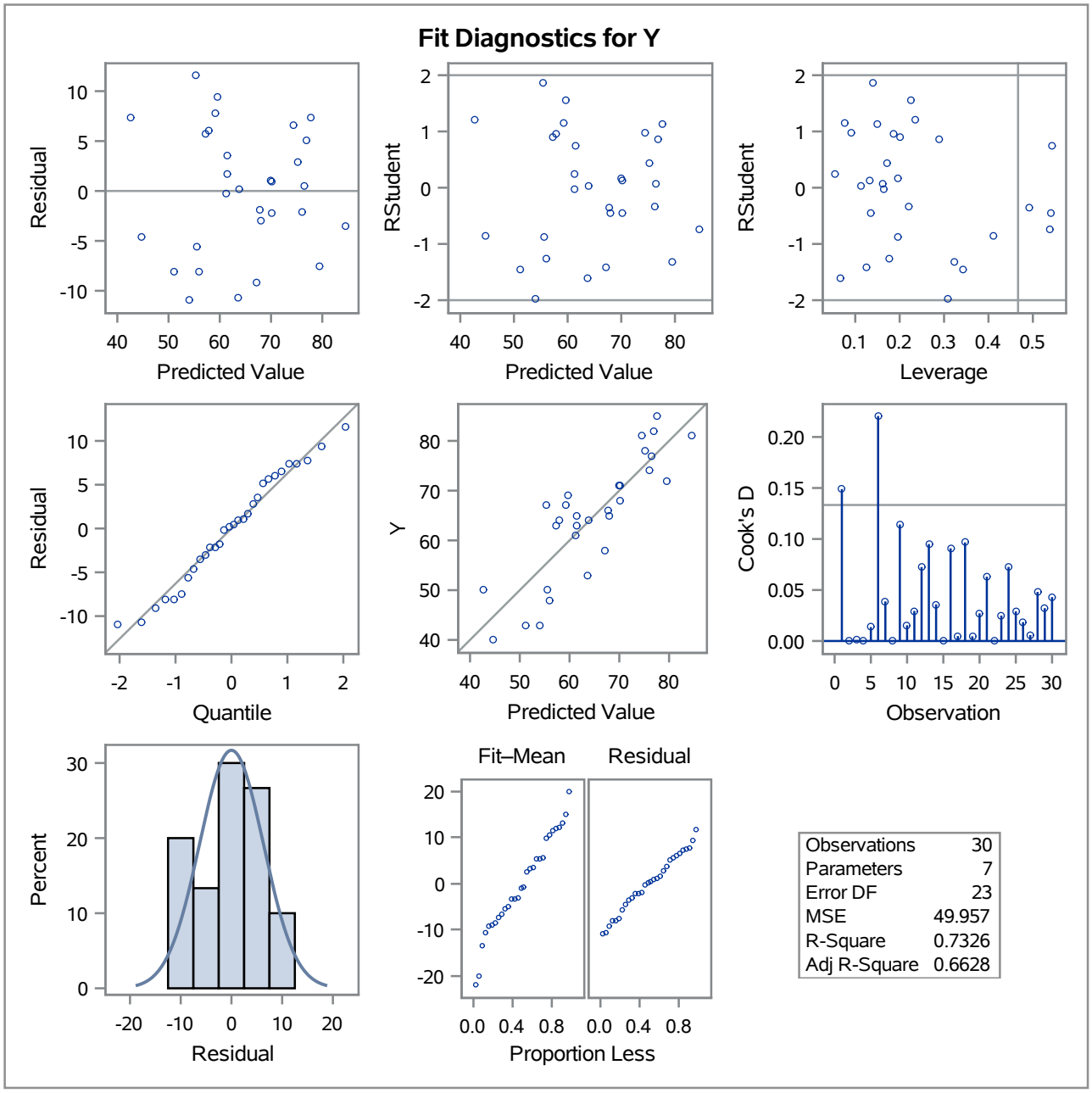
Maximum R-Square Improvement: Step 6

Bounds on condition number: 1, 36

The above model is the best 6-variable model found.

No further improvement in R-Square is possible.

The REG Procedure
Model: MODEL1
Dependent Variable: Y



The REG Procedure
Model: MODEL1
Dependent Variable: Y