

The REG Procedure
Model: MODEL1
Dependent Variable: Y

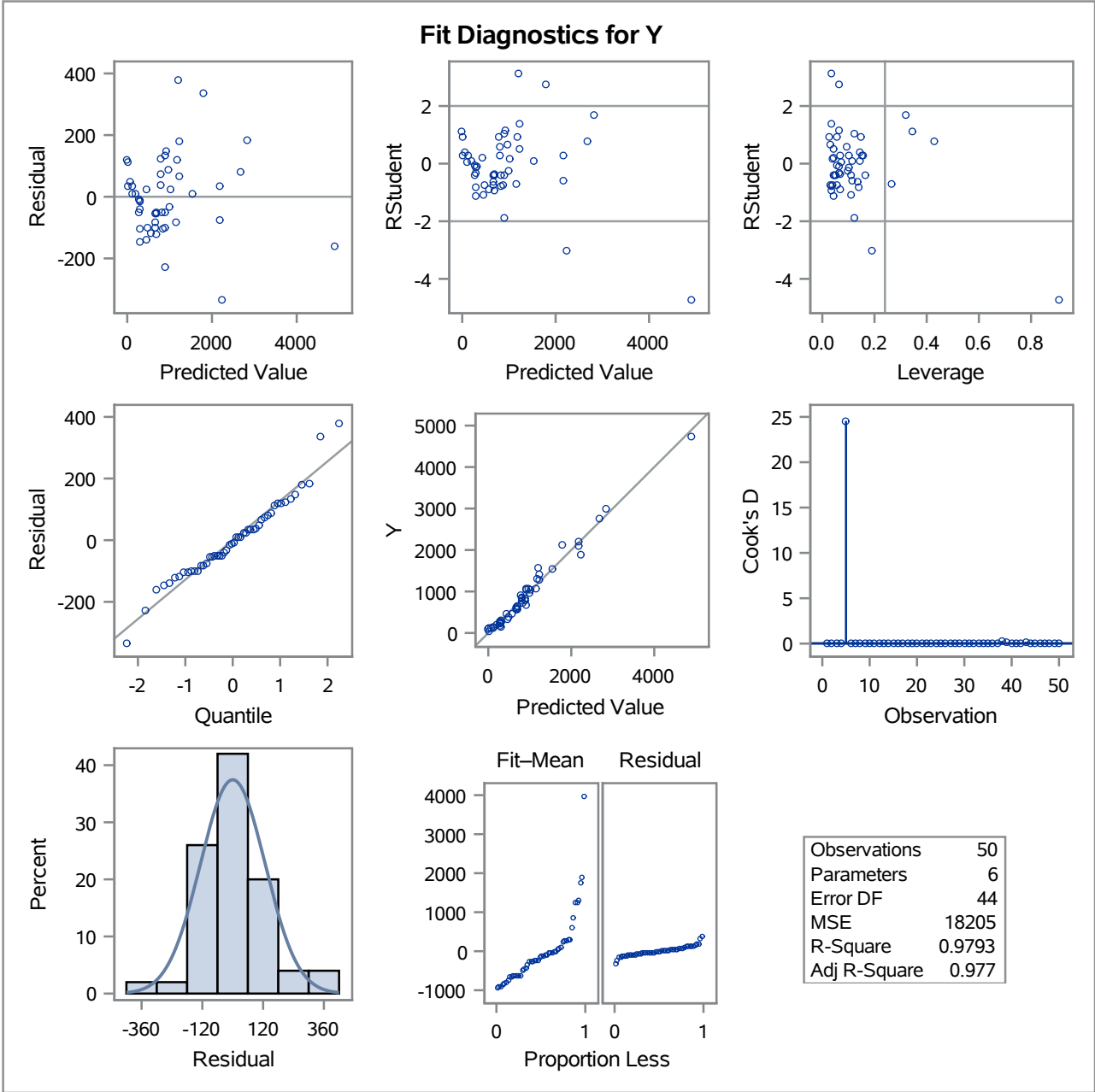
R-Square Selection Method

Number of Observations Read	50
Number of Observations Used	50

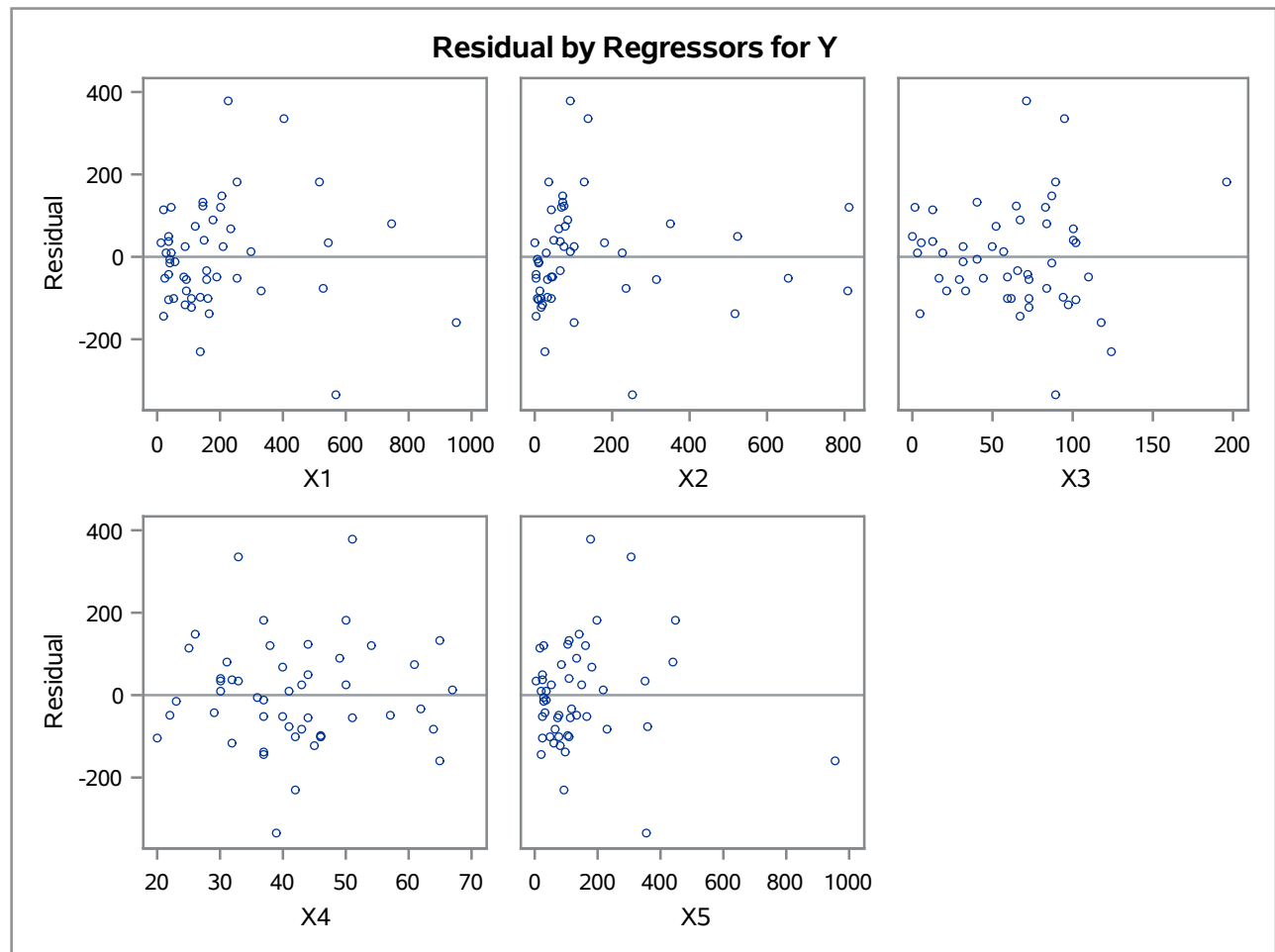
Number in Model	R-Square	Adjusted R-Square	C(p)	AIC	Variables in Model
1	0.9496	0.9486	61.3709	532.6861	X5
1	0.9141	0.9123	137.0617	559.3628	X1
1	0.3631	0.3498	1310.898	659.5195	X3
1	0.1067	0.0881	1857.107	676.4338	X4
1	0.0016	-.0192	2081.201	681.9998	X2
2	0.9633	0.9617	34.2080	518.8402	X3 X5
2	0.9575	0.9557	46.4572	526.1155	X2 X5
2	0.9534	0.9514	55.3810	530.8197	X4 X5
2	0.9530	0.9510	56.1253	531.1928	X1 X5
2	0.9409	0.9384	81.8334	542.6196	X1 X2
2	0.9356	0.9329	93.1234	546.9157	X1 X3
2	0.9347	0.9319	95.1658	547.6549	X1 X4
2	0.4704	0.4479	1084.271	652.2938	X3 X4
2	0.4645	0.4417	1096.841	652.8477	X2 X3
2	0.1095	0.0716	1853.315	678.2814	X2 X4
3	0.9702	0.9682	21.5934	510.4971	X3 X4 X5
3	0.9667	0.9646	28.8669	515.9118	X1 X3 X5
3	0.9659	0.9637	30.6130	517.1289	X1 X2 X5
3	0.9640	0.9617	34.6007	519.8020	X2 X3 X5
3	0.9617	0.9592	39.5296	522.9200	X1 X3 X4
3	0.9605	0.9579	42.1472	524.5000	X2 X4 X5
3	0.9596	0.9569	44.1149	525.6558	X1 X4 X5
3	0.9580	0.9552	47.5856	527.6314	X1 X2 X4
3	0.9444	0.9408	76.4450	541.5941	X1 X2 X3
3	0.5812	0.5539	850.1564	642.5537	X2 X3 X4
4	0.9776	0.9756	7.7449	498.1653	X1 X3 X4 X5
4	0.9727	0.9703	18.0763	507.9596	X1 X2 X4 X5
4	0.9702	0.9676	23.3974	512.3428	X2 X3 X4 X5
4	0.9697	0.9670	24.5883	513.2733	X1 X2 X3 X5
4	0.9657	0.9627	32.9757	519.3780	X1 X2 X3 X4
5	0.9793	0.9770	6.0000	496.0811	X1 X2 X3 X4 X5

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Number of Observations Read	50
Number of Observations Used	50

Forward Selection: Step 1

Variable X5 Entered: R-Square = 0.9496 and C(p) = 61.3709

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	36831593	36831593	904.45	<.0001
Error	48	1954696	40723		
Corrected Total	49	38786289			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	173.03731	37.98518	845063	20.75	<.0001
X5	5.36723	0.17847	36831593	904.45	<.0001

Bounds on condition number: 1, 1

Forward Selection: Step 2

Variable X3 Entered: R-Square = 0.9633 and C(p) = 34.2080

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	37362506	18681253	616.68	<.0001
Error	47	1423783	30293		
Corrected Total	49	38786289			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	30.67307	47.22054	12782	0.42	0.5191
X3	3.11842	0.74490	530913	17.53	0.0001
X5	4.97957	0.17963	23278659	768.44	<.0001

Bounds on condition number: 1.3619, 5.4476

The REG Procedure
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Forward Selection: Step 3

Variable X4 Entered: R-Square = 0.9702 and C(p) = 21.5934

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	37628566	12542855	498.37	<.0001
Error	46	1157723	25168		
Corrected Total	49	38786289			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	-244.78049	95.02572	167001	6.64	0.0133
X3	3.50784	0.68945	651516	25.89	<.0001
X4	6.61895	2.03574	266059	10.57	0.0022
X5	4.79875	0.17292	19382550	770.13	<.0001

Bounds on condition number: 1.519, 12.116

Forward Selection: Step 4

Variable X1 Entered: R-Square = 0.9776 and C(p) = 7.7449

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	37917089	9479272	490.76	<.0001
Error	45	869200	19316		
Corrected Total	49	38786289			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	-369.92111	89.32266	331285	17.15	0.0001
X1	1.55985	0.40359	288523	14.94	0.0004
X3	3.63783	0.60493	698529	36.16	<.0001
X4	8.69485	1.86255	420937	21.79	<.0001
X5	2.90044	0.51400	615054	31.84	<.0001

Bounds on condition number: 17.488, 144.87

The REG Procedure

Model: MODEL1

Dependent Variable: Y

Forward Selection: Step 5

Variable X2 Entered: R-Square = 0.9793 and C(p) = 6.0000

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	5	37985265	7597053	417.30	<.0001
Error	44	801024	18205		
Corrected Total	49	38786289			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	-292.27414	95.54989	170339	9.36	0.0038
X1	1.83859	0.41746	353131	19.40	<.0001
X2	-0.25120	0.12981	68176	3.74	0.0594
X3	2.77107	0.73859	256261	14.08	0.0005
X4	8.26603	1.82174	374812	20.59	<.0001
X5	2.72840	0.50686	527506	28.98	<.0001

Bounds on condition number: 18.28, 207.89

All variables have been entered into the model.

Summary of Forward Selection							
Step	Variable Entered	Number Vars In	Partial R-Square	Model R-Square	C(p)	F Value	Pr > F
1	X5	1	0.9496	0.9496	61.3709	904.45	<.0001
2	X3	2	0.0137	0.9633	34.2080	17.53	0.0001
3	X4	3	0.0069	0.9702	21.5934	10.57	0.0022
4	X1	4	0.0074	0.9776	7.7449	14.94	0.0004
5	X2	5	0.0018	0.9793	6.0000	3.74	0.0594

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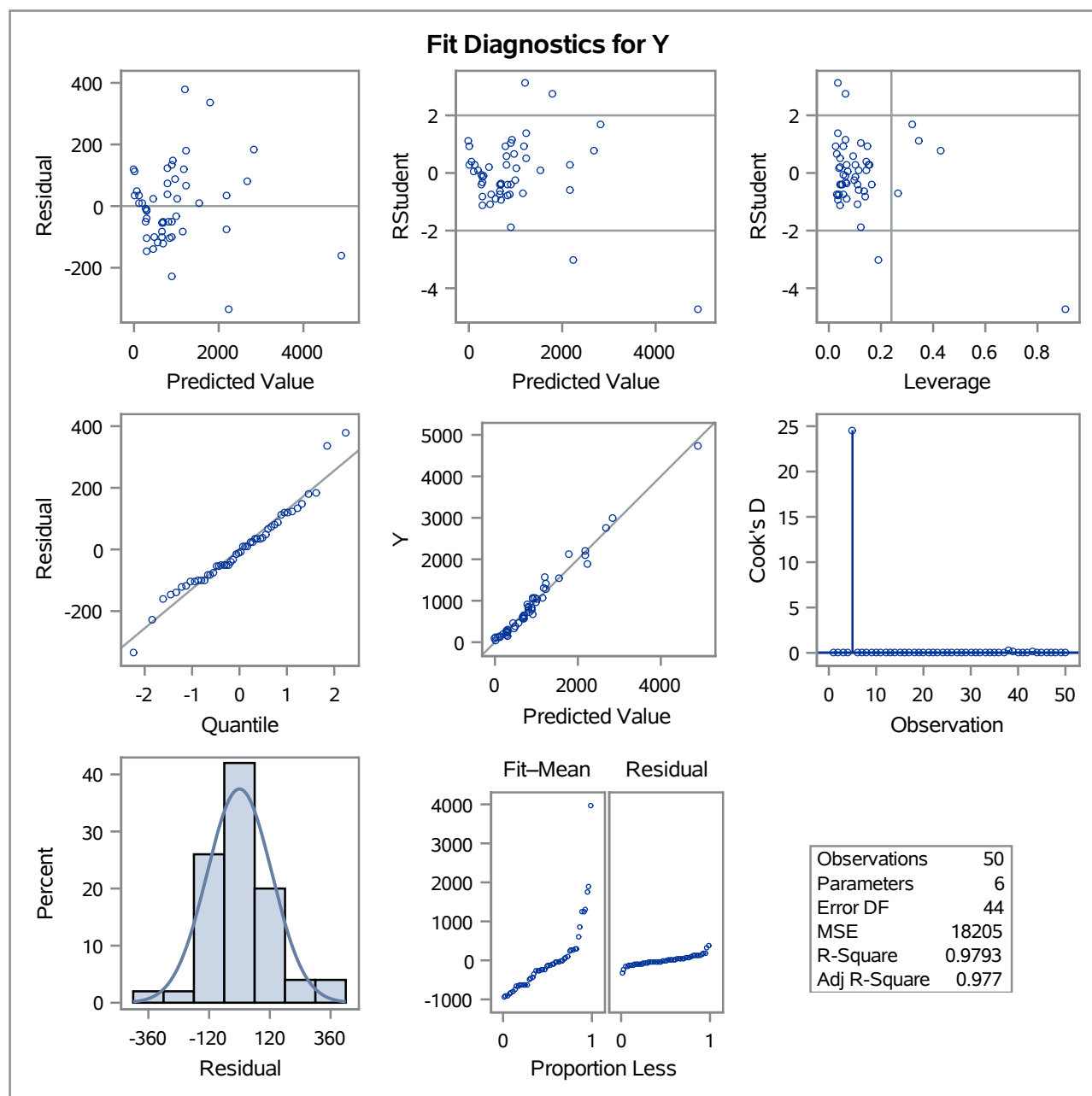
Number of Observations Read	50
Number of Observations Used	50

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	5	37985265	7597053	417.30	<.0001
Error	44	801024	18205		
Corrected Total	49	38786289			

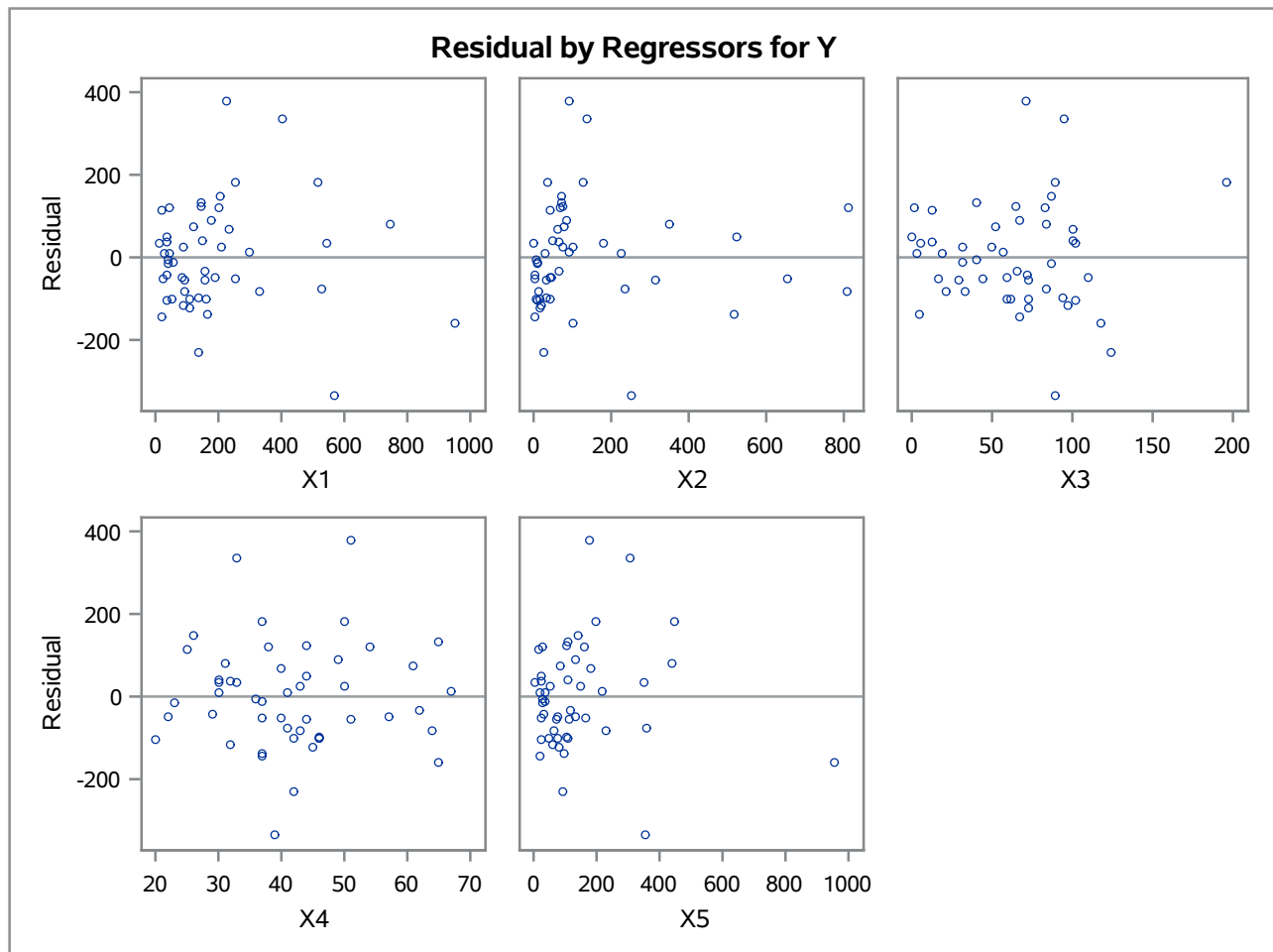
Root MSE	134.92620	R-Square	0.9793
Dependent Mean	926.94000	Adj R-Sq	0.9770
Coeff Var	14.55609		

Parameter Estimates						
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > t	Type II SS
Intercept	1	-292.27414	95.54989	-3.06	0.0038	170339
X1	1	1.83859	0.41746	4.40	<.0001	353131
X2	1	-0.25120	0.12981	-1.94	0.0594	68176
X3	1	2.77107	0.73859	3.75	0.0005	256261
X4	1	8.26603	1.82174	4.54	<.0001	374812
X5	1	2.72840	0.50686	5.38	<.0001	527506

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Dependent Variable: Y

Number of Observations Read	50
Number of Observations Used	50

Backward Elimination: Step 0

All Variables Entered: R-Square = 0.9793 and C(p) = 6.0000

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	5	37985265	7597053	417.30	<.0001
Error	44	801024	18205		
Corrected Total	49	38786289			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	-292.27414	95.54989	170339	9.36	0.0038
X1	1.83859	0.41746	353131	19.40	<.0001
X2	-0.25120	0.12981	68176	3.74	0.0594
X3	2.77107	0.73859	256261	14.08	0.0005
X4	8.26603	1.82174	374812	20.59	<.0001
X5	2.72840	0.50686	527506	28.98	<.0001

Bounds on condition number: 18.28, 207.89

Backward Elimination: Step 1

Variable X2 Removed: R-Square = 0.9776 and C(p) = 7.7449

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	37917089	9479272	490.76	<.0001
Error	45	869200	19316		
Corrected Total	49	38786289			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	-369.92111	89.32266	331285	17.15	0.0001
X1	1.55985	0.40359	288523	14.94	0.0004
X3	3.63783	0.60493	698529	36.16	<.0001

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Backward Elimination: Step 1

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
X4	8.69485	1.86255	420937	21.79	<.0001
X5	2.90044	0.51400	615054	31.84	<.0001

Bounds on condition number: 17.488, 144.87

All variables left in the model are significant at the 0.0500 level.

Summary of Backward Elimination							
Step	Variable Removed	Number Vars In	Partial R-Square	Model R-Square	C(p)	F Value	Pr > F
1	X2	4	0.0018	0.9776	7.7449	3.74	0.0594

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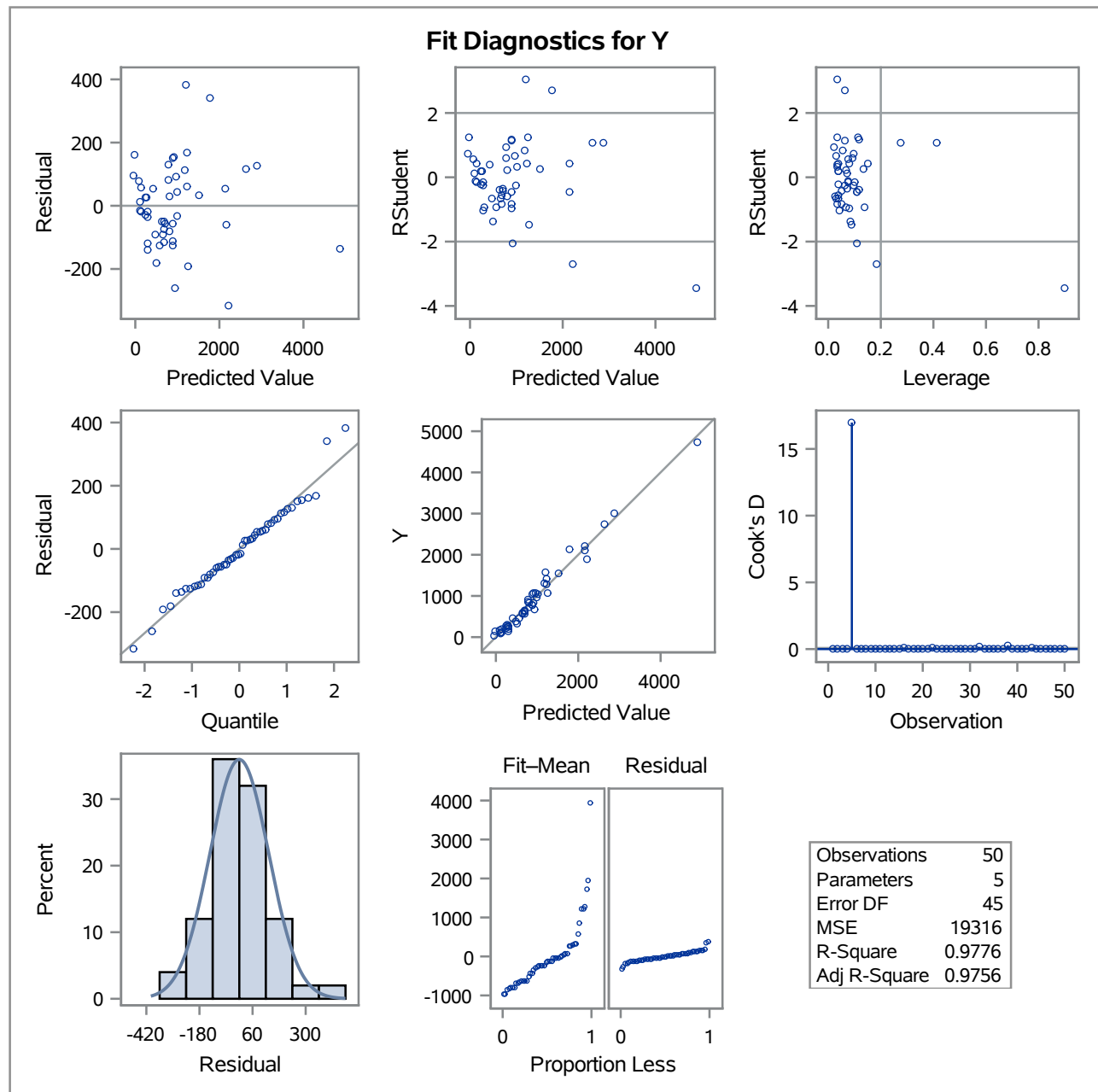
Number of Observations Read	50
Number of Observations Used	50

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	37917089	9479272	490.76	<.0001
Error	45	869200	19316		
Corrected Total	49	38786289			

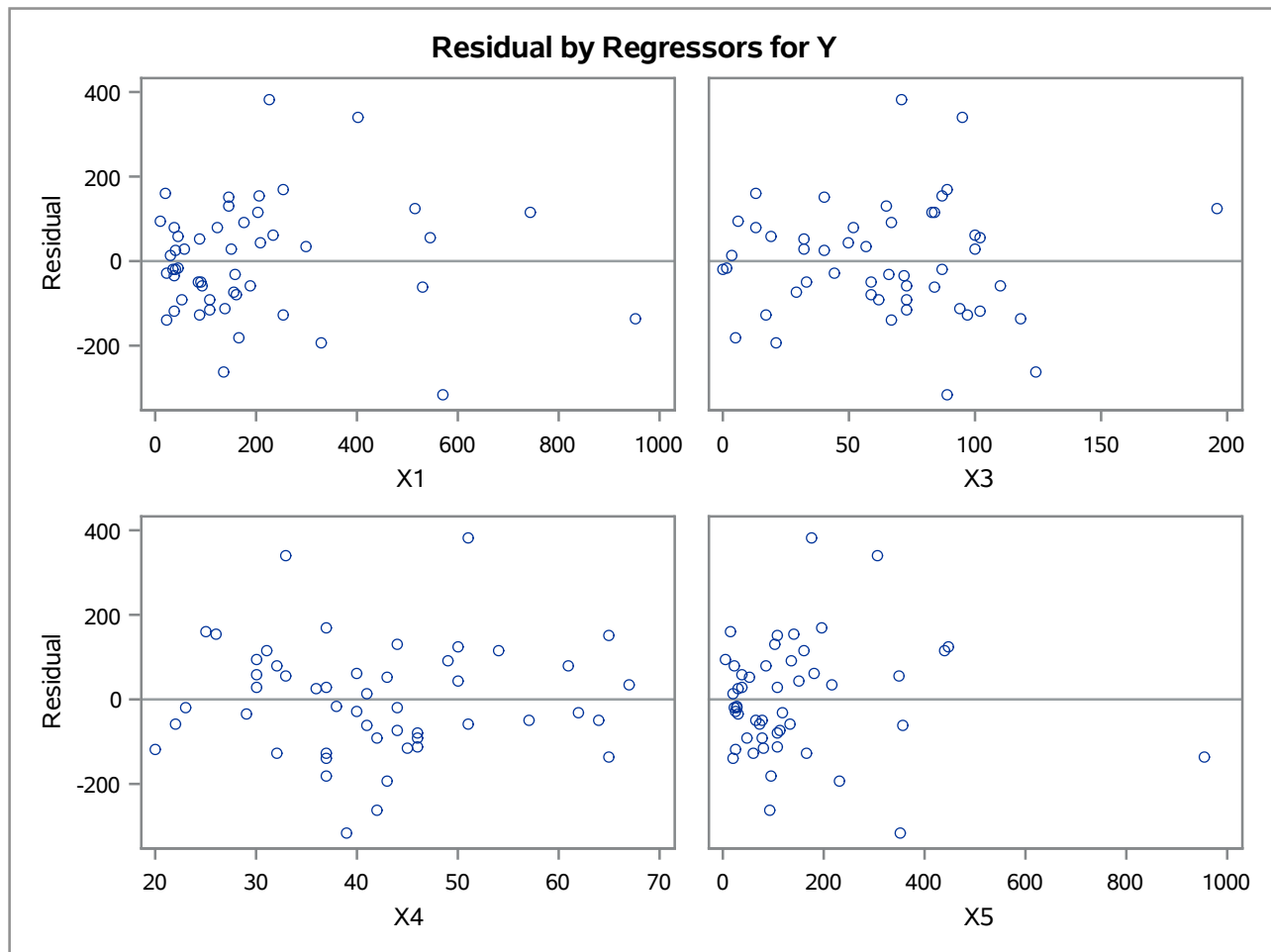
Root MSE	138.98039	R-Square	0.9776
Dependent Mean	926.94000	Adj R-Sq	0.9756
Coeff Var	14.99346		

Parameter Estimates						
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > t	Type II SS
Intercept	1	-369.92111	89.32266	-4.14	0.0001	331285
X1	1	1.55985	0.40359	3.86	0.0004	288523
X3	1	3.63783	0.60493	6.01	<.0001	698529
X4	1	8.69485	1.86255	4.67	<.0001	420937
X5	1	2.90044	0.51400	5.64	<.0001	615054

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Number of Observations Read	50
Number of Observations Used	50

Stepwise Selection: Step 1

Variable X5 Entered: R-Square = 0.9496 and C(p) = 61.3709

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	36831593	36831593	904.45	<.0001
Error	48	1954696	40723		
Corrected Total	49	38786289			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	173.03731	37.98518	845063	20.75	<.0001
X5	5.36723	0.17847	36831593	904.45	<.0001

Bounds on condition number: 1, 1

Stepwise Selection: Step 2

Variable X3 Entered: R-Square = 0.9633 and C(p) = 34.2080

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	37362506	18681253	616.68	<.0001
Error	47	1423783	30293		
Corrected Total	49	38786289			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	30.67307	47.22054	12782	0.42	0.5191
X3	3.11842	0.74490	530913	17.53	0.0001
X5	4.97957	0.17963	23278659	768.44	<.0001

Bounds on condition number: 1.3619, 5.4476

The REG Procedure

Model: MODEL1

Dependent Variable: Y

Stepwise Selection: Step 3

Variable X4 Entered: R-Square = 0.9702 and C(p) = 21.5934

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	37628566	12542855	498.37	<.0001
Error	46	1157723	25168		
Corrected Total	49	38786289			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	-244.78049	95.02572	167001	6.64	0.0133
X3	3.50784	0.68945	651516	25.89	<.0001
X4	6.61895	2.03574	266059	10.57	0.0022
X5	4.79875	0.17292	19382550	770.13	<.0001

Bounds on condition number: 1.519, 12.116

Stepwise Selection: Step 4

Variable X1 Entered: R-Square = 0.9776 and C(p) = 7.7449

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	37917089	9479272	490.76	<.0001
Error	45	869200	19316		
Corrected Total	49	38786289			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	-369.92111	89.32266	331285	17.15	0.0001
X1	1.55985	0.40359	288523	14.94	0.0004
X3	3.63783	0.60493	698529	36.16	<.0001
X4	8.69485	1.86255	420937	21.79	<.0001
X5	2.90044	0.51400	615054	31.84	<.0001

Bounds on condition number: 17.488, 144.87

The REG Procedure
Model: MODEL1
Dependent Variable: Y

Stepwise Selection: Step 5

Variable X2 Entered: R-Square = 0.9793 and C(p) = 6.0000

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	5	37985265	7597053	417.30	<.0001
Error	44	801024	18205		
Corrected Total	49	38786289			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	-292.27414	95.54989	170339	9.36	0.0038
X1	1.83859	0.41746	353131	19.40	<.0001
X2	-0.25120	0.12981	68176	3.74	0.0594
X3	2.77107	0.73859	256261	14.08	0.0005
X4	8.26603	1.82174	374812	20.59	<.0001
X5	2.72840	0.50686	527506	28.98	<.0001

Bounds on condition number: 18.28, 207.89

Stepwise Selection: Step 6

Variable X2 Removed: R-Square = 0.9776 and C(p) = 7.7449

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	37917089	9479272	490.76	<.0001
Error	45	869200	19316		
Corrected Total	49	38786289			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	-369.92111	89.32266	331285	17.15	0.0001
X1	1.55985	0.40359	288523	14.94	0.0004
X3	3.63783	0.60493	698529	36.16	<.0001
X4	8.69485	1.86255	420937	21.79	<.0001
X5	2.90044	0.51400	615054	31.84	<.0001

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Stepwise Selection: Step 6

Bounds on condition number: 17.488, 144.87

All variables left in the model are significant at the 0.0500 level.

The stepwise method terminated because the next variable to be entered was just removed.

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	X5		1	0.9496	0.9496	61.3709	904.45	<.0001
2	X3		2	0.0137	0.9633	34.2080	17.53	0.0001
3	X4		3	0.0069	0.9702	21.5934	10.57	0.0022
4	X1		4	0.0074	0.9776	7.7449	14.94	0.0004
5	X2		5	0.0018	0.9793	6.0000	3.74	0.0594
6		X2	4	0.0018	0.9776	7.7449	3.74	0.0594

The REG Procedure
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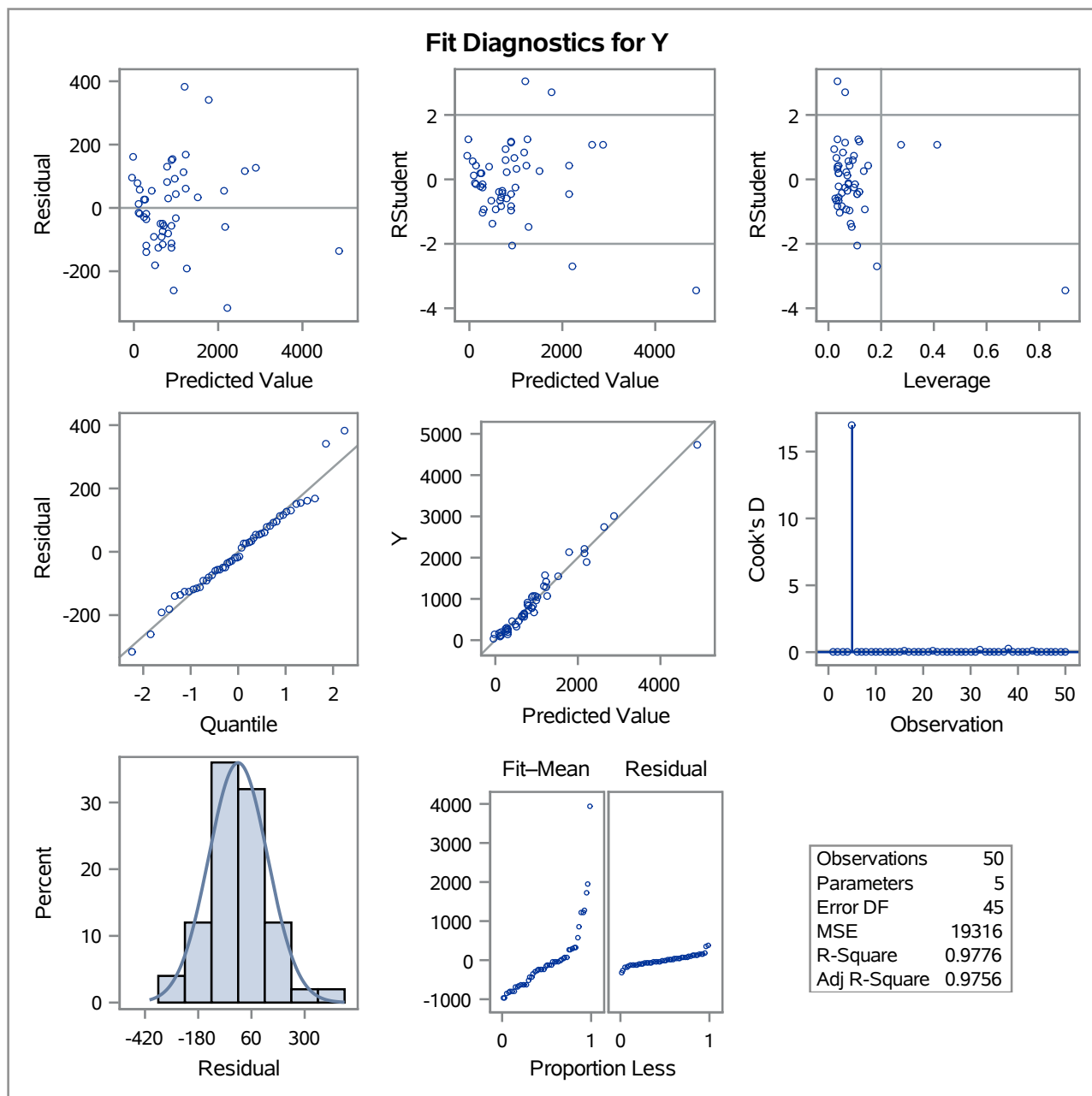
Number of Observations Read	50
Number of Observations Used	50

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	37917089	9479272	490.76	<.0001
Error	45	869200	19316		
Corrected Total	49	38786289			

Root MSE	138.98039	R-Square	0.9776
Dependent Mean	926.94000	Adj R-Sq	0.9756
Coeff Var	14.99346		

Parameter Estimates						
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > t	Type II SS
Intercept	1	-369.92111	89.32266	-4.14	0.0001	331285
X1	1	1.55985	0.40359	3.86	0.0004	288523
X3	1	3.63783	0.60493	6.01	<.0001	698529
X4	1	8.69485	1.86255	4.67	<.0001	420937
X5	1	2.90044	0.51400	5.64	<.0001	615054

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