The SAS System

Obs	tr	p	a
1	123.1	1.92	12.4
2	124.3	2.15	9.9
3	89.3	1.67	2.4
4	141.3	1.68	13.8
5	112.8	1.75	3.5
6	108.1	1.55	1.8
7	143.9	1.54	17.8
8	124.2	2.10	9.8
9	110.1	2.44	8.3
10	111.7	2.47	9.8
11	123.8	1.86	12.6
12	123.5	1.93	11.5
13	110.2	2.47	7.4
14	100.9	2.11	6.1
15	123.3	2.10	9.5
16	115.7	1.73	8.8
17	116.6	1.86	4.9
18	153.5	2.19	18.8
19	149.2	1.90	18.9
20	89.0	1.67	2.3
21	132.6	2.43	14.1
22	97.5	2.13	2.9
23	106.1	2.33	5.9
24	115.3	1.75	7.6
25	98.5	2.05	5.3
26	135.1	2.35	16.8
27	124.2	2.12	8.8
28	98.4	2.13	3.2
29	114.8	1.89	5.4
30	142.5	1.50	17.3
31	122.6	1.93	11.2
32	127.7	2.27	11.2
33	113.0	1.66	7.9
34	144.2	1.73	17.0
35	109.2	1.59	3.3
36	106.8	2.29	7.1
37	145.0	1.86	15.3
38	124.0	1.91	12.7

39	106.7	2.34	6.1
40	153.2	2.13	19.6
41	120.1	2.05	6.3
42	119.3	1.89	9.0
43	150.6	2.12	18.7
44	92.2	1.87	2.2
45	130.5	2.09	16.0
46	112.5	1.76	4.5
47	111.8	1.77	4.3
48	120.1	1.94	9.3
49	107.4	2.37	8.3
50	128.6	2.10	15.4
51	124.6	2.29	9.2
52	127.2	2.36	10.2

The SAS System

The REG Procedure
Model: MODEL1

Model Crossproducts X'X X'Y Y'Y				
Variable	**Intercept**	**p**	**a**	**tr**
Intercept	52	104.09	502.4	6256.8
p	104.09	212.0153	1012.755	12521.297
a	502.4	1012.755	6189.66	64389.39
tr	6256.8	12521.297	64389.39	766418.78

The SAS System

The REG Procedure
Model: MODEL1
Dependent Variable: tr

Number of Observations Read	52
Number of Observations Used	52

X'X Inverse, Parameter Estimates, and SSE

Variable	Intercept	p	a	tr
Intercept	1.1407559491	-0.539170181	-0.004373179	104.7855136
p	-0.539170181	0.2764295534	-0.001466367	-6.641930069
a	-0.004373179	-0.001466367	0.000756448	2.9842989529
tr	104.7855136	-6.641930069	2.9842989529	1805.1684303

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	11776	5888.09194	159.83	<.0001
Error	49	1805.16843	36.84017		
Corrected Total	51	13581			

Root MSE	6.06961	**R-Square**	0.8671
Dependent Mean	120.32308	**Adj R-Sq**	0.8617
Coeff Var	5.04443		

Parameter Estimates

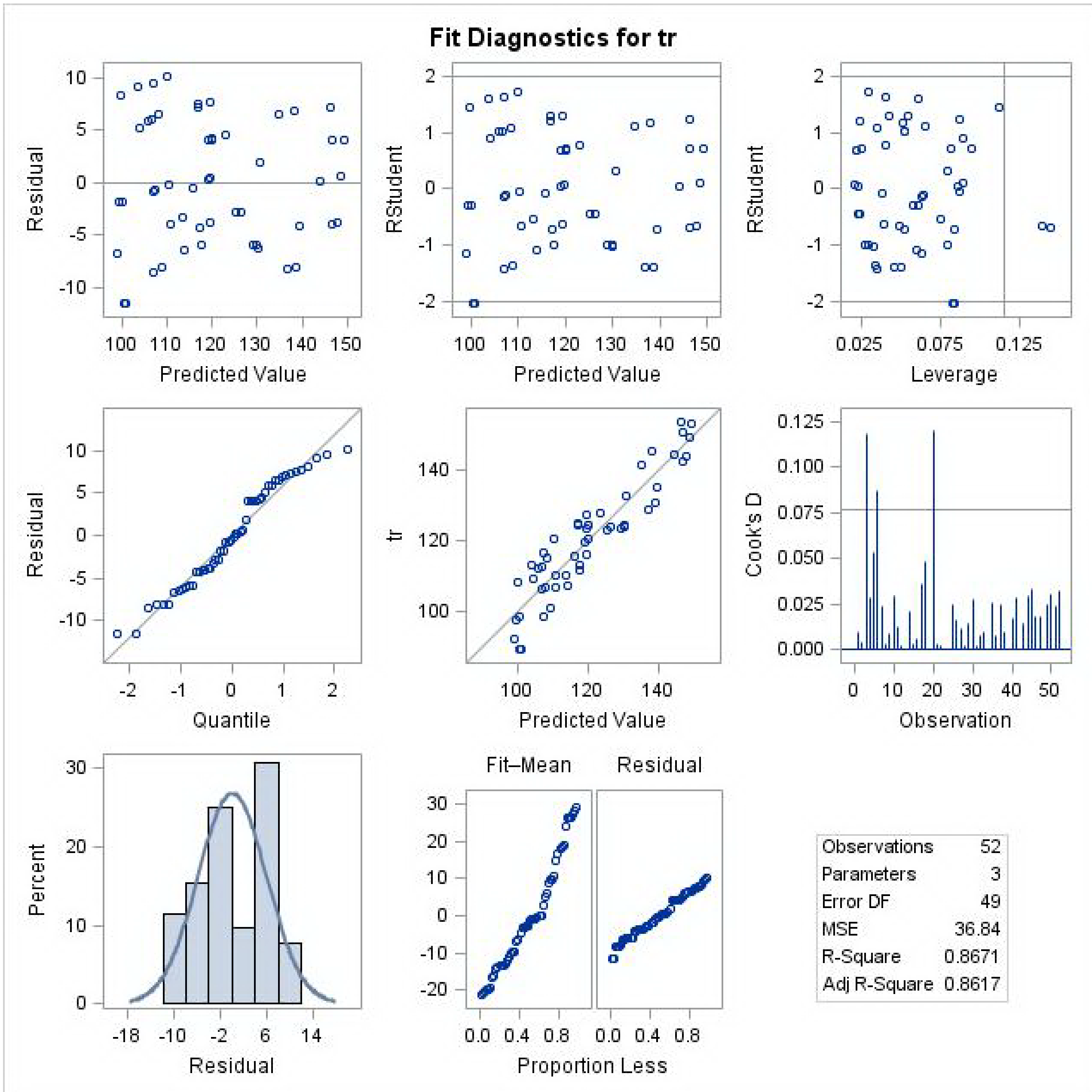
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	104.78551	6.48272	16.16	<.0001
p	1	-6.64193	3.19119	-2.08	0.0427
a	1	2.98430	0.16694	17.88	<.0001

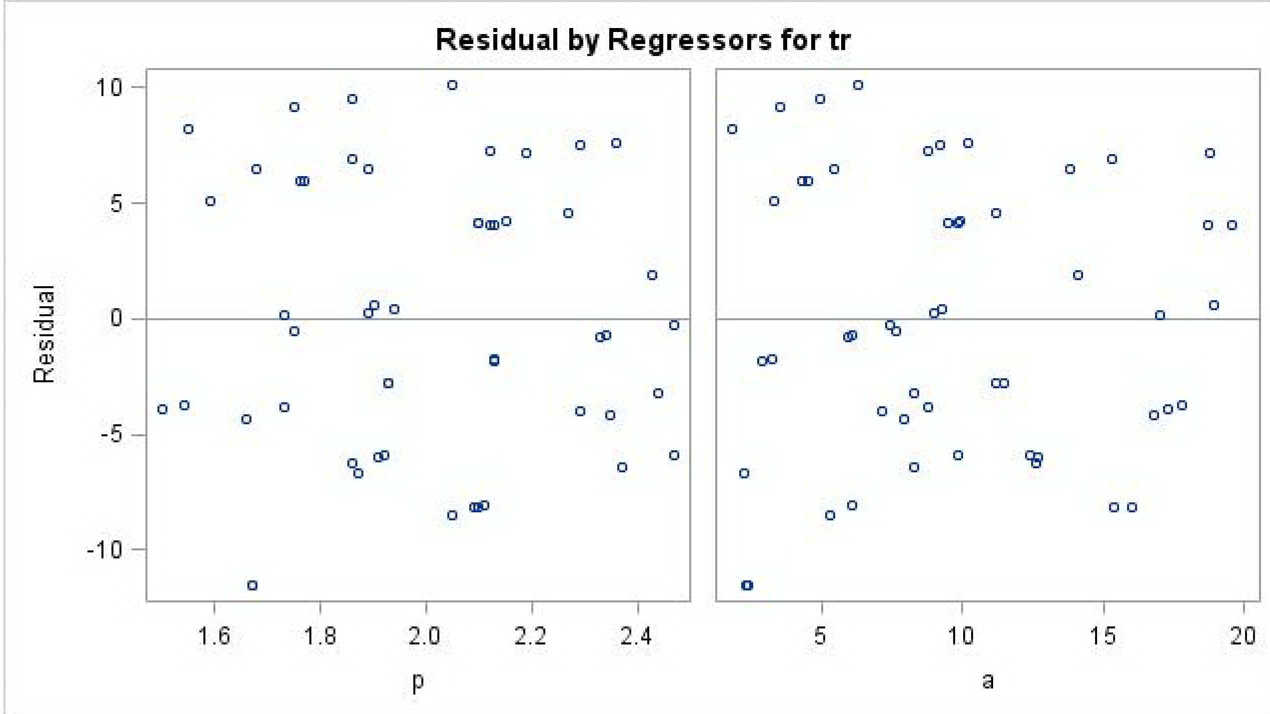
Covariance of Estimates

Variable	Intercept	p	a
Intercept	42.025645431	-19.86312223	-0.161108673
p	-19.86312223	10.183712306	-0.054021214
a	-0.161108673	-0.054021214	0.0278676735

The SAS System

The REG Procedure
Model: MODEL1
Dependent Variable: tr




Residual by Regressors for tr
Residual
10
5
0
-5
-10
1.6
1.8
2.0
2.2
2.4
p
5
10
15
20
a

The SAS System

Obs	tr	yhat	ehat
1	123.1	129.038	-5.9383
2	124.3	120.050	4.2501
3	89.3	100.856	-11.5558
4	141.3	134.810	6.4896
5	112.8	103.607	9.1928
6	108.1	99.862	8.2377
7	143.9	147.677	-3.7775
8	124.2	120.084	4.1164
9	110.1	113.349	-3.2489
10	111.7	117.626	-5.9261
11	123.8	130.034	-6.2337
12	123.5	126.286	-2.7860
13	110.2	110.464	-0.2638
14	100.9	108.975	-8.0753
15	123.3	119.188	4.1117
16	115.7	119.557	-3.8568
17	116.6	107.055	9.5454
18	153.5	146.345	7.1555
19	149.2	148.569	0.6309
20	89.0	100.557	-11.5574
21	132.6	130.724	1.8758
22	97.5	99.293	-1.7927
23	106.1	106.917	-0.8172
24	115.3	115.843	-0.5428
25	98.5	106.986	-8.4863
26	135.1	139.313	-4.2132
27	124.2	116.966	7.2335
28	98.4	100.188	-1.7880
29	114.8	108.347	6.4525
30	142.5	146.451	-3.9510
31	122.6	125.391	-2.7907
32	127.7	123.132	4.5675
33	113.0	117.336	-4.3359
34	144.2	144.028	0.1719
35	109.2	104.073	5.1270
36	106.8	110.764	-3.9640
37	145.0	138.091	6.9087

38	124.0	130.000	-6.0000
39	106.7	107.448	-0.7476
40	153.2	149.130	4.0695
41	120.1	109.971	10.1294
42	119.3	119.091	0.2090
43	150.6	146.511	4.0890
44	92.2	98.931	-6.7306
45	130.5	138.653	-8.1527
46	112.5	106.525	5.9749
47	111.8	105.862	5.9382
48	120.1	119.654	0.4459
49	107.4	113.814	-6.4138
50	128.6	136.796	-8.1957
51	124.6	117.031	7.5690
52	127.2	119.550	7.6496