

MutliVariate Regression Example, Copyright 1995, TRIUS, Inc.

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Ind. Var	Ind. Var	Ind. Var	Dependent Variable	Predicted
X1	X2	X3	Ym	Yp
1.68	1.13	1.00	14.000	23.738263
3.86	1.23	1.10	11.770	11.893213
5.76	2.50	0.74	12.660	10.409835
5.87	2.50	1.45	11.920	34.908534
9.03	4.00	0.10	5.440	-42.686044
9.96	4.20	0.30	4.600	-21.69777
12.64	2.85	0.17	1.110	-3.6479187
16.19	0.29	2.78	63.020	33.113953
16.22	3.80	0.57	118.830	177.04525
16.52	9.23	0.48	153.000	173.43413
17.39	4.94	3.48	108.510	103.32583
17.58	0.89	2.55	171.280	240.61057
22.61	13.25	0.73	987.000	979.7921
22.88	1.02	0.68	1176.000	1018.9504
24.49	0.72	0.05	1245.000	1344.9502

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 Standard Deviations ---> 438.061 434.401

- x0^0 -24.535179
- x0 -9.0729414
- x0^3 -0.033591612
- x0^4 0.0058742096
- x1 -26.306507
- x1^2 0.6932877
- Ln x1 84.733618
- x2^5 -0.49244067
- !x2 82.606061

Formula: -24.535178935-9.072941424*A13-0.033591612*A13^3+0.0058742096*A13^4-26.306507*A13^5+0.6932877*A13^6+84.733618*LN(A13)+82.606061*A13^7

Result:	23.738263
R ²	0.9833592

-	-	{GOTO} anchor~	{GOTO} toplot~
Alt-A to Analyze		/droresults~q	/cxvar1~~{RT}
Alt-S to Setup Graphs		/cformula~~	/cyvar~~{RT}/rcvprey~~{rt}
Alt-G to Graph Data		{EDIT} {HOME} {DEL}~	/cxvar2~~{RT}
=	=	/c~{DN} . {END} {DN} {UP 2}	/cyvar~~{RT}/rcvprey~~{rt}
-	-	{home} {goto f4}	/cxvar3~~{RT}
			/cyvar~~{RT}/rcvprey~~
			{goto toplot}
Residual			/dsrd. {RT 2} {END} {DN}~p~
			/dsrd. {RT 2} {END} {DN}~p~
Yp-Ym			/dsrd. {RT 2} {END} {DN}~p~
-	-		
	-14.000		1.68 14.000
	0.123		3.86 11.770
	-2.250		5.76 12.660
	22.989		5.87 11.920
	-48.126		9.03 5.440
	-26.298		9.96 4.600
	-4.758		12.64 1.110
	-29.906		16.19 63.020
	58.215		16.22 118.830
	20.434		16.52 153.000
	-5.184		17.39 108.510
	69.331		17.58 171.280
	-7.208		22.61 987.000
	-157.050		22.88 1176.000
	99.950		24.49 1245.000
-	-		
	56.547		

$$421 * A13^4 - 26.306506518 * B13 + 0.693287698 * B13^2 + 84.733617668 * @LN(@ABS(B13)) - 0.49$$

{menujump graphd}

1_Y-vs-X1 2_Y-vs-X2 3_Y-vs-X3 Quit
Plot f(x1,x2,x3)Plot f(x1,x2,x3)Plot f(x1,x2,x3)Back to Ready
/gnuvarx1~v{e/gnuvarx2~v{e/gnuvarx3~v{e{home} {goto f
{menujump gr: {menujump gr: {menujump graphd}

~g{RT 3}

~g{RT 3}

~g{home} {goto f5}

23.74	0.29	63.020	33.114	0.05	1245.000
11.89	0.72	1245.000	1344.950	0.10	5.440
10.41	0.89	171.280	240.611	0.17	1.110
34.91	1.02	1176.000	1018.950	0.30	4.600
-42.69	1.13	14.000	23.738	0.48	153.000
-21.70	1.23	11.770	11.893	0.57	118.830
-3.65	2.50	11.920	34.909	0.68	1176.000
33.11	2.50	12.660	10.410	0.73	987.000
177.05	2.85	1.110	-3.648	0.74	12.660
173.43	3.80	118.830	177.045	1.00	14.000
103.33	4.00	5.440	-42.686	1.10	11.770
240.61	4.20	4.600	-21.698	1.45	11.920
979.79	4.94	108.510	103.326	2.55	171.280
1018.95	9.23	153.000	173.434	2.78	63.020
1344.95	13.25	987.000	979.792	3.48	108.510

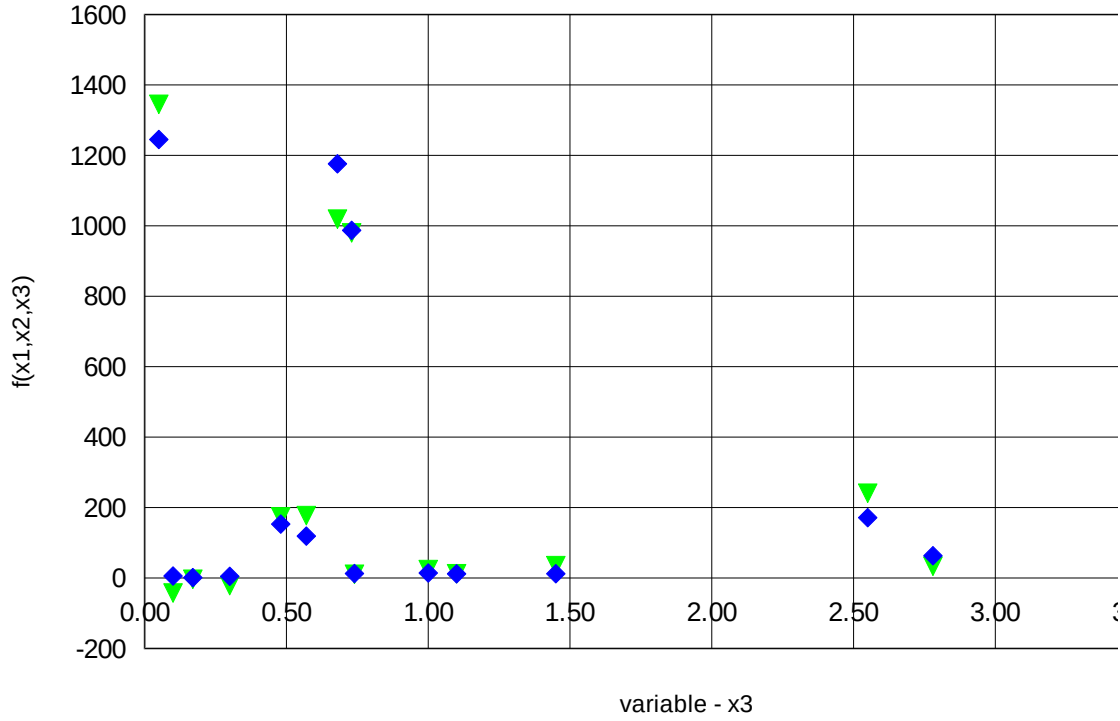
2440674*C13^5+82.606060989*@SQRT(C13)

```
{GOTO}anchor~  
/rcv{END}{DN}{UP 2}~predict~{GOTO}predict  
~  
Mode /gnuvarx1~rb.{END}{DN}~qvcbbq{home}{goto f5}  
{menujump graphd}
```

1344.9502
-42.686044
-3.6479187
-21.69777
173.43413
177.04525
1018.9504
979.7921
10.409835
23.738263
11.893213
34.908534
240.61057
33.113953
103.32583

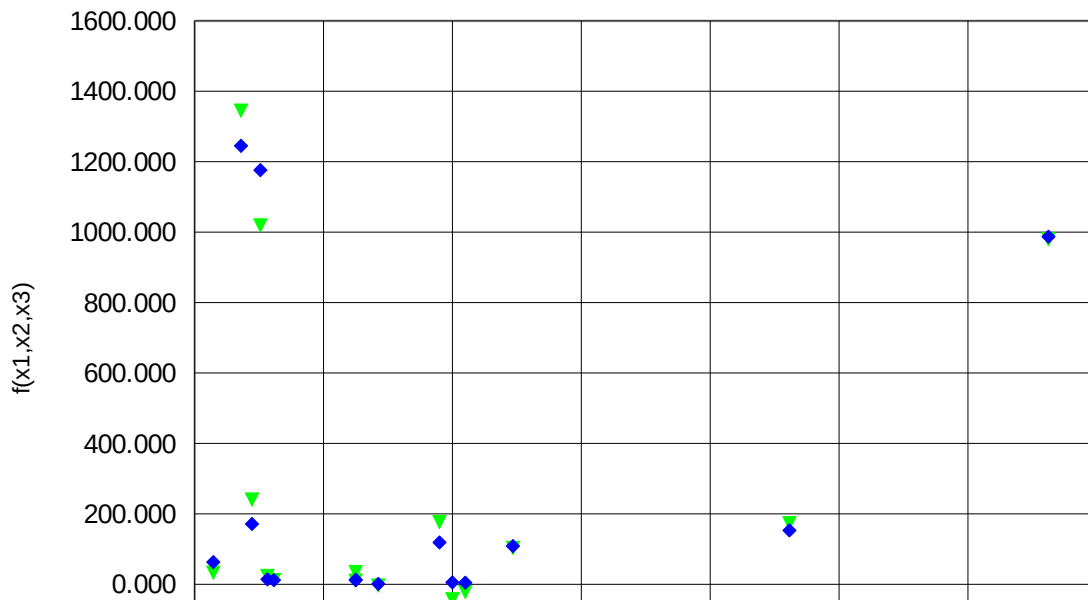
Partial Dependency

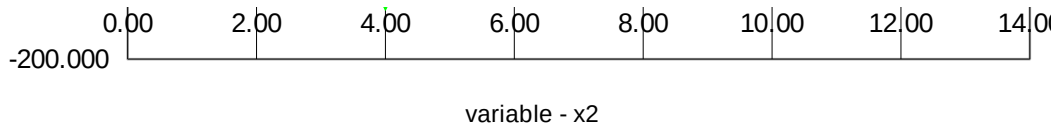
$f(x_1, x_2, x_3)$ -vs- x_3



Partial Dependency

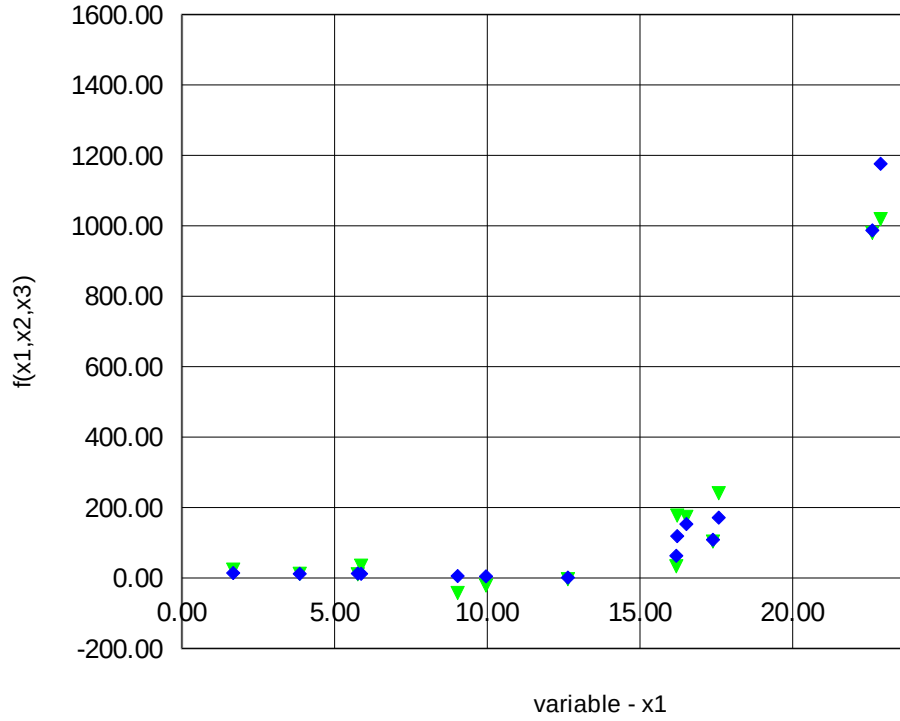
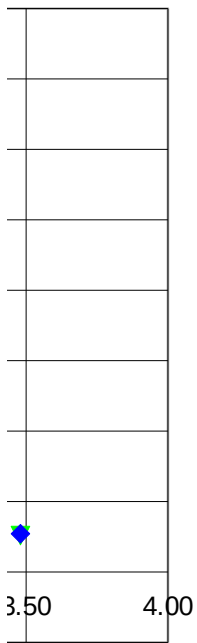
$f(x_1, x_2, x_3)$ -vs- x_2





Partial Dependency

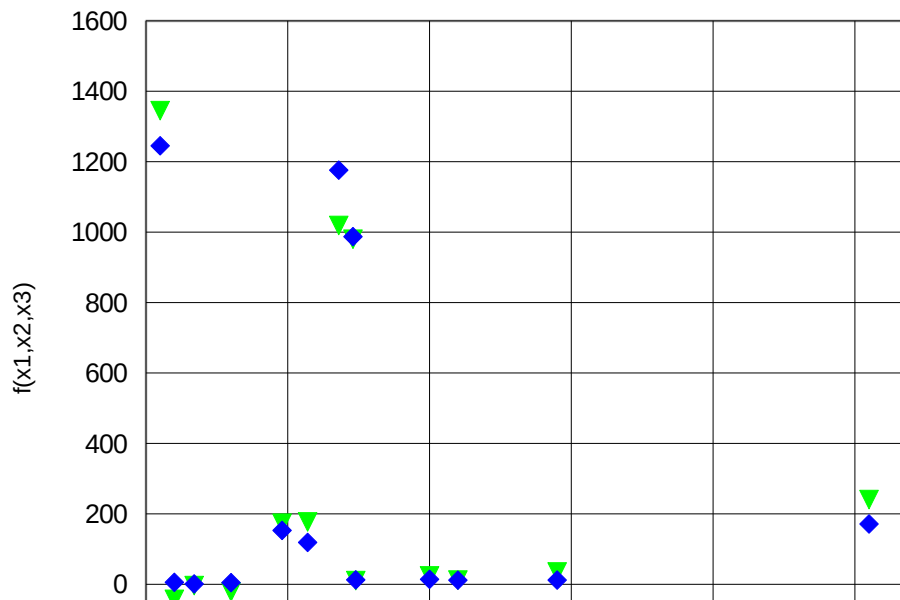
$f(x_1, x_2, x_3)$ -vs- x_1



Partial Dependency

$f(x_1, x_2, x_3)$ -vs- x_3

◆ measured
▼ calculated



0

