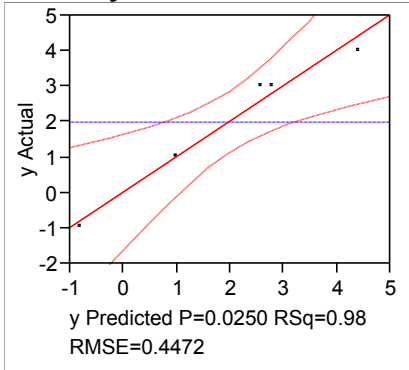


# Stat 328/ MLR "By Hand" Example

X1	x2	y
-2	0	4
-1	0	3
0	1	3
1	1	1
2	1	-1

## Response y Whole Model

### Actual by Predicted Plot



### Summary of Fit

RSquare	0.975
RSquare Adj	0.95
Root Mean Square Error	0.447214
Mean of Response	2
Observations (or Sum Wgts)	5

### Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	2	15.600000	7.80000	39.0000
Error	2	0.400000	0.20000	Prob > F
C. Total	4	16.000000		0.0250

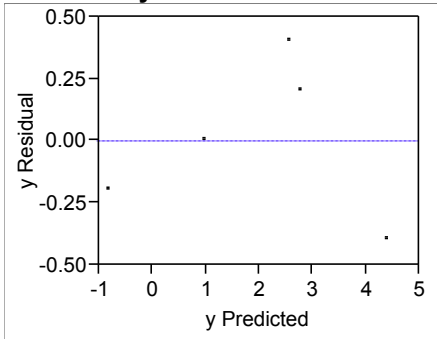
### Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t	Lower 95%	Upper 95%
Intercept	0.8	0.52915	1.51	0.2697	-1.47675	3.0767498
x1	-1.8	0.282843	-6.36	0.0238	-3.016974	-0.583026
x2	2	0.816497	2.45	0.1340	-1.513101	5.5131012

### Effect Tests

Source	Nparm	DF	Sum of Squares	F Ratio	Prob > F
x1	1	1	8.1000000	40.5000	0.0238
x2	1	1	1.2000000	6.0000	0.1340

### Residual by Predicted Plot



fake

Rows	x1	x2	y	Predicted y	StdErr Pred y	StdErr Indiv y	Lower 95% Mean y	Upper 95% Mean y	Lower 95% Indiv y	Upper 95% Indiv y	Residual y	Studentized Resid y
1	-2	0	4	4.4	0.34641016	0.56568542	2.90951737	5.89048263	1.96605206	6.83394794	-0.4	-1.4142136
2	-1	0	3	2.6	0.34641016	0.56568542	1.10951737	4.09048263	0.16605206	5.03394794	0.4	1.41421356
3	0	1	3	2.8	0.38297084	0.58878406	1.15220946	4.44779054	0.26666667	5.33333333	0.2	0.8660254
4	1	1	1	1	0.25819889	0.51639778	-0.1109402	2.11094016	-1.2218803	3.22188032	-8.882e-16	-2.432e-15
5	2	1	-1	-0.8	0.38297084	0.58878406	-2.4477905	0.84779054	-3.3333333	1.73333333	-0.2	-0.8660254