

*The REG Procedure*

*Model: MODEL1*

*Dependent Variable: y*

<b>Number of Observations Read</b>	7
<b>Number of Observations Used</b>	7

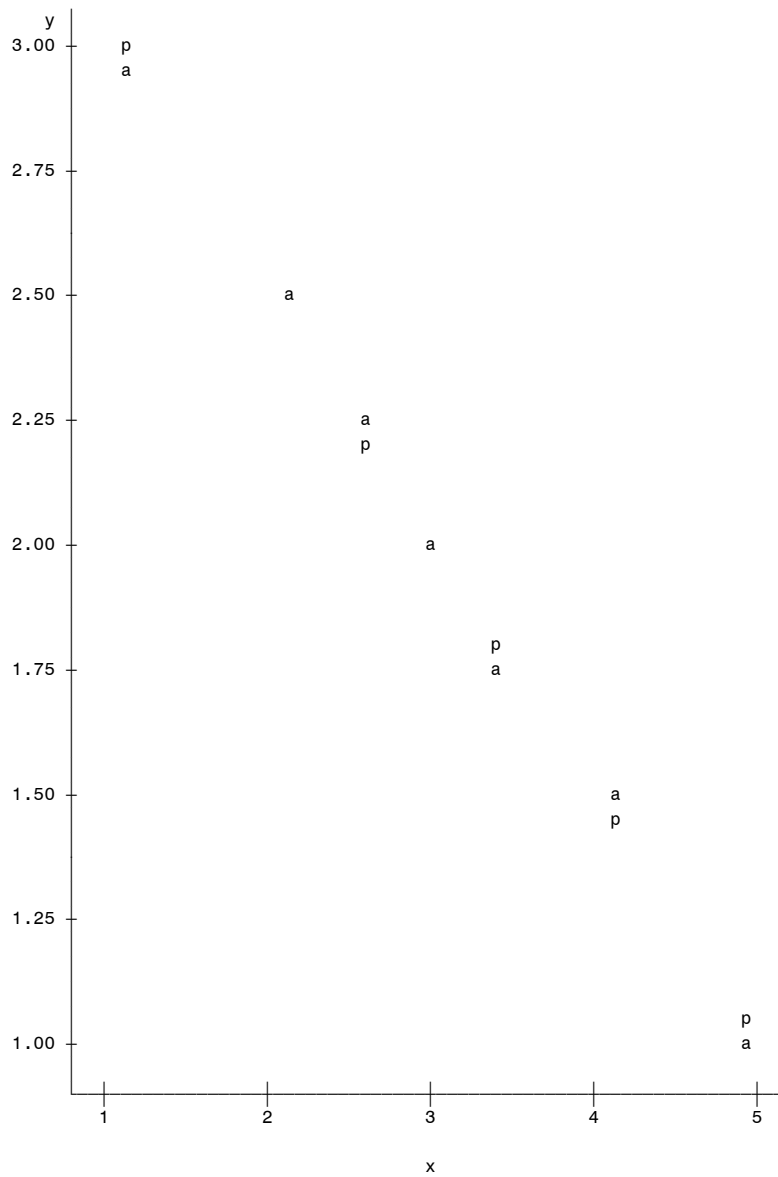
<b>Analysis of Variance</b>					
<b>Source</b>	<b>DF</b>	<b>Sum of Squares</b>	<b>Mean Square</b>	<b>F Value</b>	<b>Pr &gt; F</b>
<b>Model</b>	1	2.57579	2.57579	1226.60	<.0001
<b>Error</b>	5	0.01050	0.00210		
<b>Corrected Total</b>	6	2.58629			

<b>Root MSE</b>	0.04583	<b>R-Square</b>	0.9959
<b>Dependent Mean</b>	1.99857	<b>Adj R-Sq</b>	0.9951
<b>Coeff Var</b>	2.29289		

<b>Parameter Estimates</b>					
<b>Variable</b>	<b>DF</b>	<b>Parameter Estimate</b>	<b>Standard Error</b>	<b>t Value</b>	<b>Pr &gt;  t </b>
<b>Intercept</b>	1	3.57186	0.04815	74.19	<.0001
<b>x</b>	1	-0.51924	0.01483	-35.02	<.0001

# Residuals from regression on original data

Plot of  $y^*x$ . Symbol used is 'a'.  
Plot of  $\text{pred}^*x$ . Symbol used is 'p'.



NOTE: 2 obs hidden.

**The REG Procedure****Model: MODEL1****Dependent Variable: y**

<b>Number of Observations Read</b>	8
<b>Number of Observations Used</b>	8

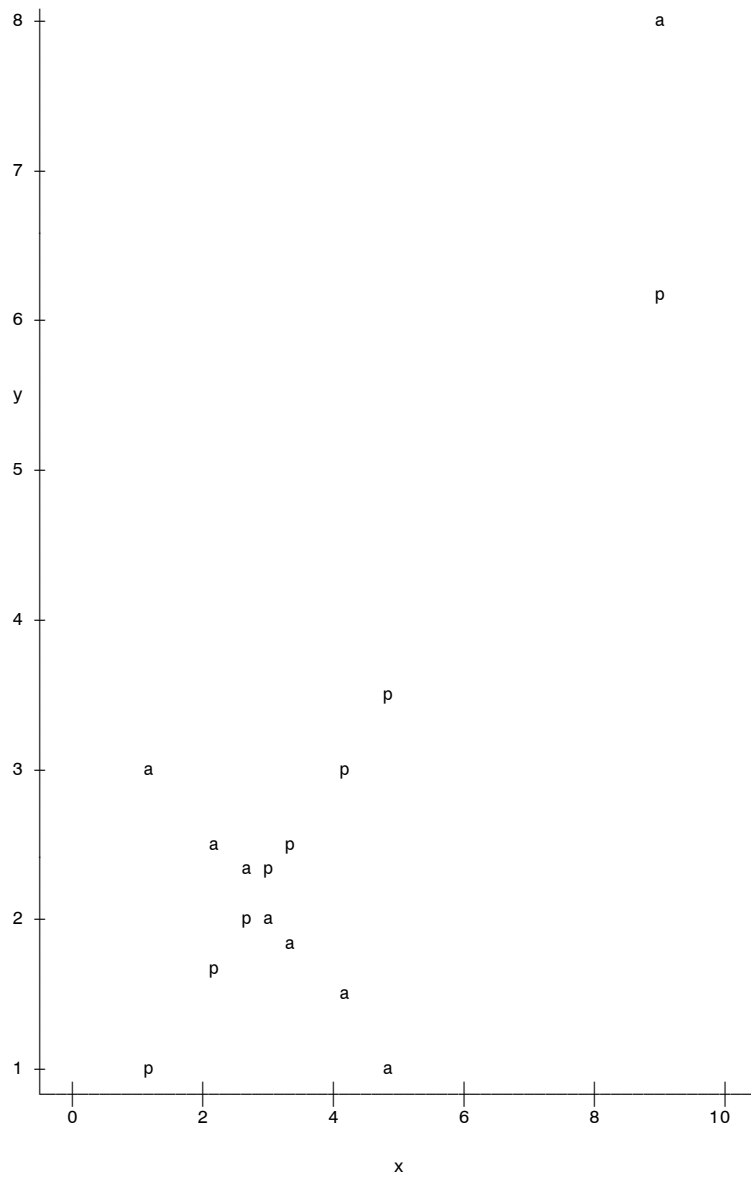
<b>Analysis of Variance</b>					
<b>Source</b>	<b>DF</b>	<b>Sum of Squares</b>	<b>Mean Square</b>	<b>F Value</b>	<b>Pr &gt; F</b>
<b>Model</b>	1	17.09377	17.09377	6.03	0.0494
<b>Error</b>	6	17.00752	2.83459		
<b>Corrected Total</b>	7	34.10129			

<b>Root MSE</b>	1.68362	<b>R-Square</b>	0.5013
<b>Dependent Mean</b>	2.74875	<b>Adj R-Sq</b>	0.4181
<b>Coeff Var</b>	61.25049		

<b>Parameter Estimates</b>					
<b>Variable</b>	<b>DF</b>	<b>Parameter Estimate</b>	<b>Standard Error</b>	<b>t Value</b>	<b>Pr &gt;  t </b>
<b>Intercept</b>	1	0.30267	1.16039	0.26	0.8029
<b>x</b>	1	0.64775	0.26378	2.46	0.0494

# Residuals from regression on original data

Plot of  $y \cdot x$ . Symbol used is 'a'.  
Plot of  $\text{pred} \cdot x$ . Symbol used is 'p'.



## The ROBUSTREG Procedure

Model Information	
Data Set	WORK.ONEOUT
Dependent Variable	y
Number of Independent Variables	1
Number of Observations	8
Method	M Estimation

Number of Observations Read	8
Number of Observations Used	8

Summary Statistics						
Variable	Q1	Median	Q3	Mean	Standard Deviation	MAD
x	2.3500	3.2050	4.5000	3.7763	2.4125	1.4826
y	1.6250	2.1250	2.7450	2.7488	2.2072	0.7561

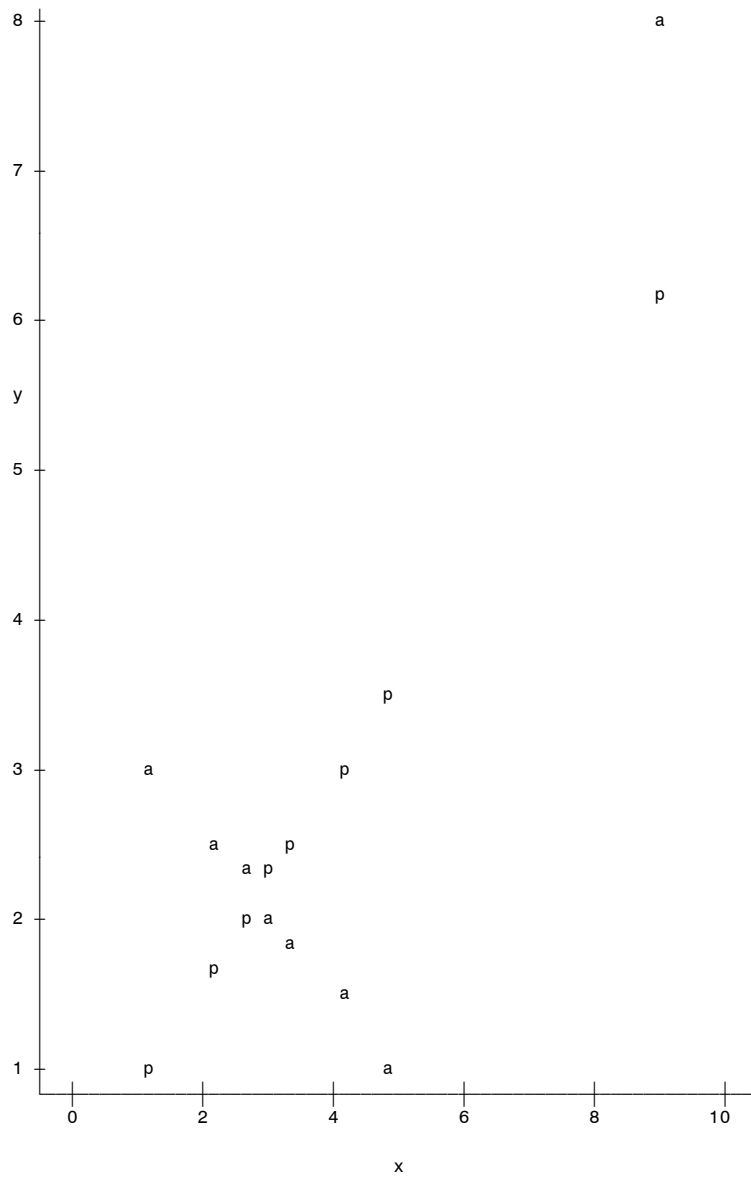
Parameter Estimates							
Parameter	DF	Estimate	Standard Error	95% Confidence Limits		Chi-Square	Pr > ChiSq
Intercept	1	0.3008	1.2676	-2.1836	2.7853	0.06	0.8124
x	1	0.6531	0.2882	0.0884	1.2179	5.14	0.0234
Scale	1	1.7245					

Diagnostics Summary		
Observation Type	Proportion	Cutoff
Outlier	0.0000	3.0000

Goodness-of-Fit	
Statistic	Value
R-Square	0.2858
AICR	8.0844
BICR	9.5263
Deviance	15.9620

# Residuals from regression on original data

Plot of  $y \cdot x$ . Symbol used is 'a'.  
Plot of  $\text{pred} \cdot x$ . Symbol used is 'p'.



## The ROBUSTREG Procedure

Model Information	
Data Set	WORK.ONEOUT
Dependent Variable	y
Number of Independent Variables	1
Number of Observations	8
Method	MM Estimation

Number of Observations Read	8
Number of Observations Used	8

Summary Statistics						
Variable	Q1	Median	Q3	Mean	Standard Deviation	MAD
x	2.3500	3.2050	4.5000	3.7763	2.4125	1.4826
y	1.6250	2.1250	2.7450	2.7488	2.2072	0.7561

Profile for the Initial LTS Estimate	
Total Number of Observations	8
Number of Squares Minimized	6
Number of Coefficients	2
Highest Possible Breakdown Value	0.3750

MM Profile	
Chi Function	Tukey
K1	3.4400
Efficiency	0.8500

Parameter Estimates							
Parameter	DF	Estimate	Standard Error	95% Confidence Limits		Chi-Square	Pr > ChiSq
Intercept	1	3.5724	0.0509	3.4727	3.6721	4931.93	<.0001
x	1	-0.5194	0.0157	-0.5502	-0.4887	1095.66	<.0001
Scale	0	0.0891					

*The ROBUSTREG Procedure*

Diagnostics		
Obs	Standardized Robust Residual	Outlier
8	102.1190	*

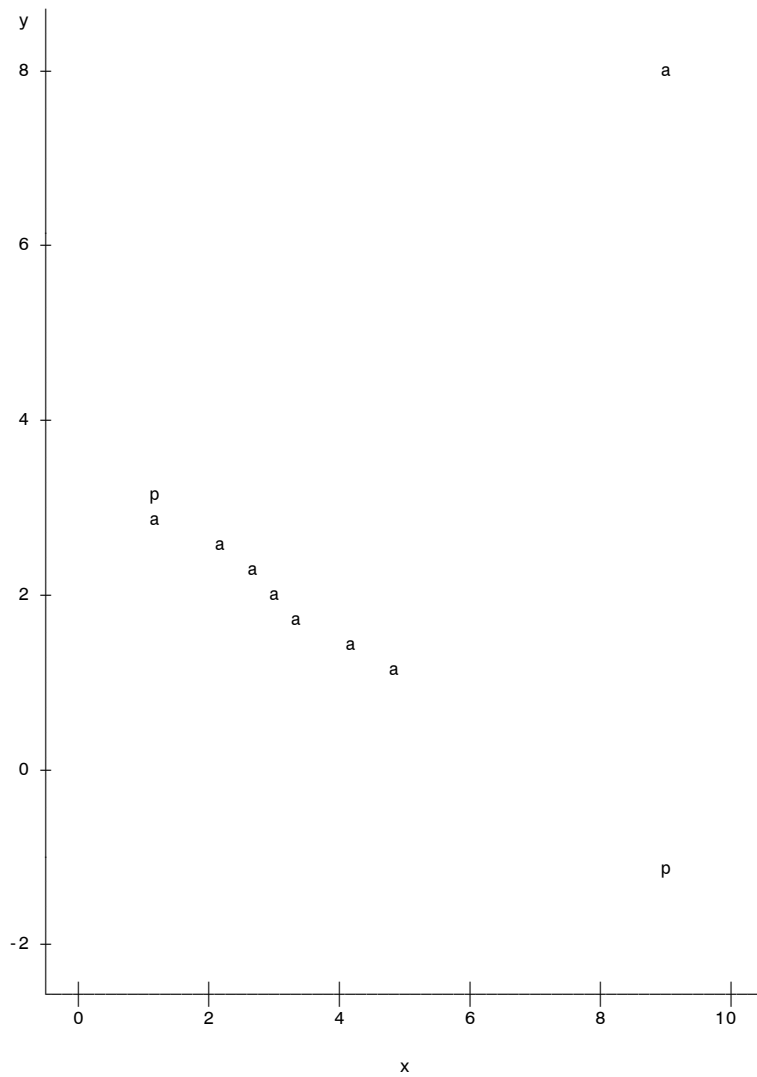
Diagnostics Summary		
Observation Type	Proportion	Cutoff
Outlier	0.1250	3.0000

Goodness-of-Fit	
Statistic	Value
R-Square	0.8061
AICR	5.9850
BICR	9.3917
Deviance	0.0416



# Residuals from regression on original data

Plot of  $y \cdot x$ . Symbol used is 'a'.  
Plot of  $\text{pred} \cdot x$ . Symbol used is 'p'.



NOTE: 6 obs hidden.

x	y
3.01	2.00
4.10	1.50
2.10	2.52
3.40	1.75
2.60	2.25
4.90	1.00
1.10	2.97
9.00	8.00