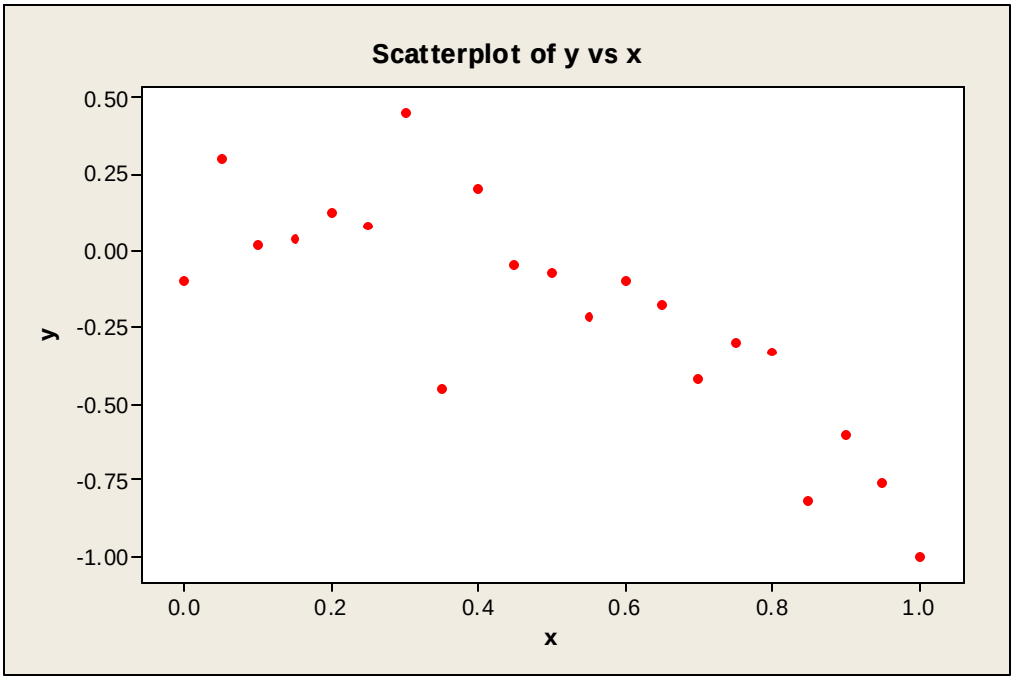


```
proc nlin;
  parms b0=0 b2=-.5 phi=.25;
  model y=b0-2*phi*b2*x+b2*x*x;
run;
```

The NLIN Procedure
Dependent Variable y
Method: Gauss-Newton

Iterative Phase

Iter	b0	b2	phi	Sum of Squares
0	0	-0.5000	0.2500	2.3100
1	0.0424	-1.5529	0.0508	1.9069
2	0.0424	-1.5529	0.1859	0.6451

NOTE: Convergence criterion met.

Estimation Summary

Method	Gauss-Newton
Iterations	2
R	0
PPC	0
RPC(phi)	2.6558
Object	0.661724
Objective	0.645065
Observations Read	21
Observations Used	21
Observations Missing	0

Source	DF	Sum of Squares	Mean Square	F Value	Approx Pr > F
Model	2	2.1702	1.0851	30.28	<.0001
Error	18	0.6451	0.0358		
Corrected Total	20	2.8153			

Parameter	Estimate	Approx Std Error	Approximate 95% Confidence Limits	
b0	0.0424	0.1130	-0.1950	0.2798
b2	-1.5529	0.5056	-2.6150	-0.4907
phi	0.1859	0.1113	-0.0480	0.4197

Approximate Correlation Matrix

	b0	b2	phi
b0	1.0000000	0.7084130	-0.8891903
b2	0.7084130	1.0000000	-0.9188135
phi	-0.8891903	-0.9188135	1.0000000

```
proc nlin;
  parms b0=0 b2=-.5; phi=-0.40;
  model y=b0-2*phi*b2*x+b2*x*x;
run;
```

The NLIN Procedure
Dependent Variable y
Method: Gauss-Newton

Iterative Phase

Iter	b0	b2	Sum of Squares
0	0	-0.5000	1.4278
1	0.2189	-0.5642	0.7852

NOTE: Convergence criterion met.

Estimation Summary

Method	Gauss-Newton
Iterations	1
R	0
PPC	0
RPC(b0)	218935.9
Object	0.450062
Objective	0.785182
Observations Read	21
Observations Used	21
Observations Missing	0

Source	DF	Sum of Squares	Mean Square	F Value	Approx Pr > F
Model	1	2.0301	2.0301	49.13	<.0001
Error	19	0.7852	0.0413		
Corrected Total	20	2.8153			

Parameter	Estimate	Approx Std Error	Approximate 95% Confidence Limits	
b0	0.2189	0.0744	0.0633	0.3746
b2	-0.5642	0.0805	-0.7327	-0.3957

Approximate Correlation Matrix

	b0	b2
b0	1.0000000	-0.8026837
b2	-0.8026837	1.0000000