

options nocenter;

1

```

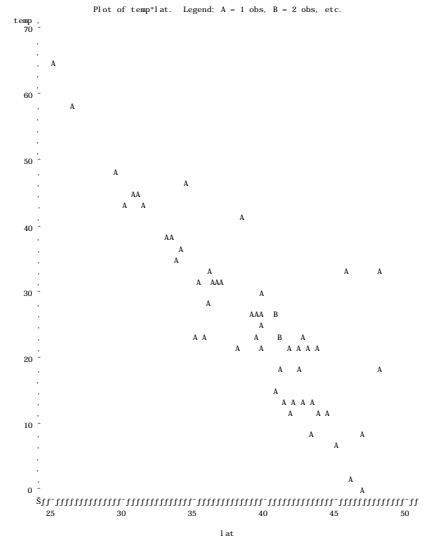
data temp;
  input city $ 1-19 temp lat long;
cards;
Mobile, AL 44 31.2 88.5
Montgomery, AL 38 32.9 86.8
Phoenix, AZ 35 33.6 112.5
Little Rock, AR 31 35.4 92.8
Los Angeles, CA 47 34.3 118.7
San Francisco, CA 42 38.4 123.0
Denver, CO 15 40.7 105.3
New Haven, CT 22 43.7 73.4
Wilmington, DE 26 40.5 76.3
Washington, DC 30 39.7 77.5
Jacksonville, FL 45 31.0 82.3
Key West, FL 65 25.0 82.0
Miami, FL 58 26.3 80.7
Atlanta, GA 37 33.9 85.0
Boise, ID 22 43.7 117.1
Chicago, IL 19 42.3 88.0
Indianapolis, IN 21 39.8 86.9
Des Moines, IA 11 41.8 93.6
Wichita, KS 22 38.1 97.6
Louisville, KY 27 39.0 86.5
New Orleans, LA 45 30.8 90.2
Portland, ME 12 44.2 70.5
Baltimore, MD 25 39.7 77.3
Boston, MA 23 42.7 71.4
Detroit, MI 21 43.1 83.9
Minneapolis, MN 2 45.9 93.9
St. Louis, MO 24 39.3 90.5
Helena, MT 8 47.1 112.4
Omaha, NE 13 41.9 96.1
Concord, NH 11 43.5 71.9
Atlantic City, NJ 27 39.8 75.3
Albuquerque, NM 24 35.1 106.7
Albany, NY 14 42.6 73.7
New York, NY 27 40.8 74.6
Charlotte, NC 34 35.9 81.5
Raleigh, NC 31 36.4 78.9
Bismarck, ND 0 47.1 101.0
Cincinnati, OH 26 39.2 85.0
Cleveland, OH 21 42.3 82.5
Oklahoma City, OK 28 35.9 97.5
Portland, OR 33 45.6 123.2
Harrisburg, PA 24 40.9 77.8
Philadelphia, PA 24 40.9 75.5
Charleston, SC 38 33.3 80.8
Nashville, TN 31 36.7 87.6
Amarillo, TX 24 35.6 101.9
Galveston, TX 49 29.4 95.5
Houston, TX 44 30.1 95.9
Salt Lake City, UT 18 41.1 112.3
Burlington, VT 7 45.0 73.9
Norfolk, VA 32 37.0 76.6
Seattle, WA 33 48.1 122.5
Spokane, WA 19 48.1 117.9
Madison, WI 9 43.4 90.2
Milwaukee, WI 13 43.3 88.1
Cheyenne, WY 14 41.2 104.9
;

```

```

proc plot;
  plot temp*lat;
proc corr;
  var temp lat long;
proc reg;
  model temp=lat;
  output out=one residual=ehat predicted=yhat;
proc plot;
  plot ehat*yhat;
proc univariate plot;
  var ehat;
proc reg;
  model temp=lat long;
run;

```



The CORR Procedure

3

3 Variables: temp lat long

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
temp	56	26.51786	13.37976	1485	0	65.00000
lat	56	38.96964	5.37854	2182	25.00000	48.10000
long	56	90.96250	14.96970	5094	70.50000	123.20000

Pearson Correlation Coefficients. N = 56

Prob > |r| under H0: Rho=0

	temp	lat	long
temp	1.00000	-0.84804 < .0001	0.02394 0.8610
lat	-0.84804 < .0001	1.00000	0.14477 0.2871
long	0.02394 0.8610	0.14477 0.2871	1.00000

The REG Procedure

Model: MODEL1

Dependent Variable: temp

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	7080.87305	7080.87305	138.28	< .0001
Error	54	2765.10909	51.20572		
Corrected Total	55	9845.98214			

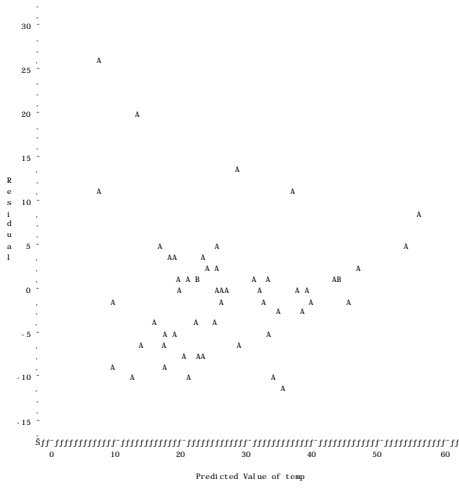
Root MSE	7.15582	R-Square	0.7192
Dependent Mean	26.51786	Adj R-Sq	0.7140
Coeff Var	26.98490		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	108.72774	7.05010	15.41	< .0001
lat	1	-2.10959	0.17940	-11.76	< .0001

Plot of ehat\*ychat. Legend: A = 1 obs, B = 2 obs, etc.

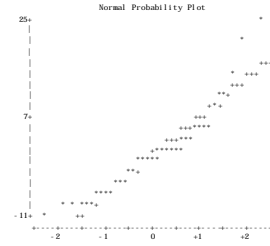
4



The UNIVARIATE Procedure

Stem	Leaf	#	Boxplot
24	7	1	*
22			
20	5	1	0
18			
16			
14	3	1	0
12			
10	67	2	
8	0	1	
6			
4	34805	5	
2	2372	4	-----
0	05012235667	11	*
-0	8432955320	10	-----
-2	8508	4	
-4	0940	4	-----
-6	983840	6	
-8	98542	5	
-10	7	1	

Variable: ehat (Residual)



The REG Procedure  
Model: MODEL1  
Dependent Variable: teap

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Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	7297.33488	3648.66744	75.88	<.0001
Error	53	2548.64727	48.08768		
Corrected Total	55	9845.98214			

Root MSE	6.93453	R-Square	0.7411
Dependent Mean	26.51786	Adj R-Sq	0.7314
Coeff Var	26.15041		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	98.64523	8.32708	11.85	<.0001
lat	1	-2.18355	0.17570	-12.31	<.0001
long	1	0.13396	0.06314	2.12	0.0386