# The SAS System

## The UNIVARIATE Procedure
## Variable: pemax (pemax)

| Moments | | | |
|---|---|---|---|
| N | 25 | Sum Weights | 25 |
| Mean | 109.12 | Sum Observations | 2728 |
| Std Deviation | 33.4369058 | Variance | 1118.02667 |
| Skewness | 1.07127096 | Kurtosis | 0.47299602 |
| Uncorrected SS | 324512 | Corrected SS | 26832.64 |
| Coeff Variation | 30.6423257 | Std Error Mean | 6.68738115 |

| Basic Statistical Measures | | | |
|---|---|---|---|
| Location | | Variability | |
| Mean | 109.1200 | Std Deviation | 33.43691 |
| Median | 95.0000 | Variance | 1118 |
| Mode | 85.0000 | Range | 130.00000 |
| | | Interquartile Range | 45.00000 |

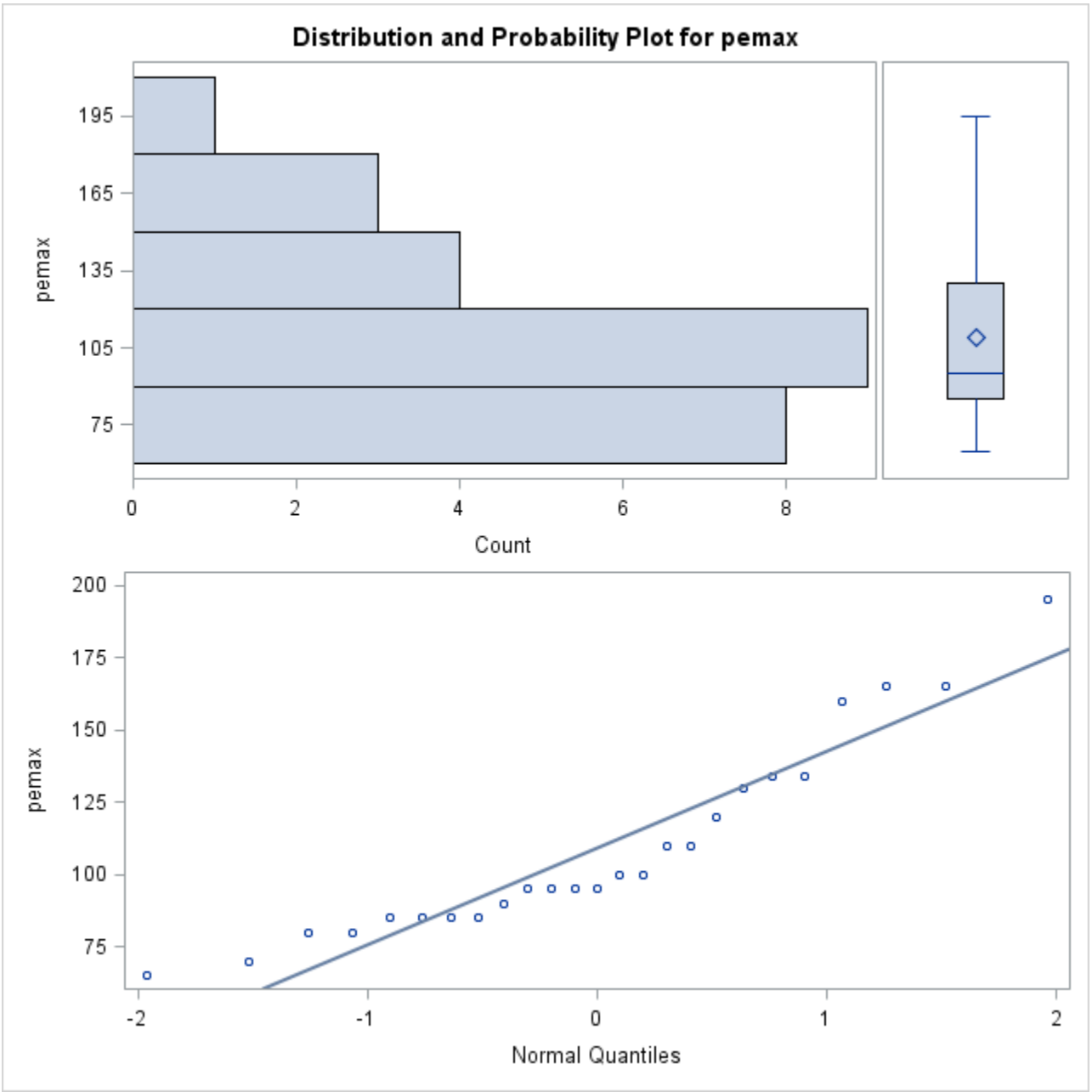
**Note: The mode displayed is the smallest of 2 modes with a count of 4.**

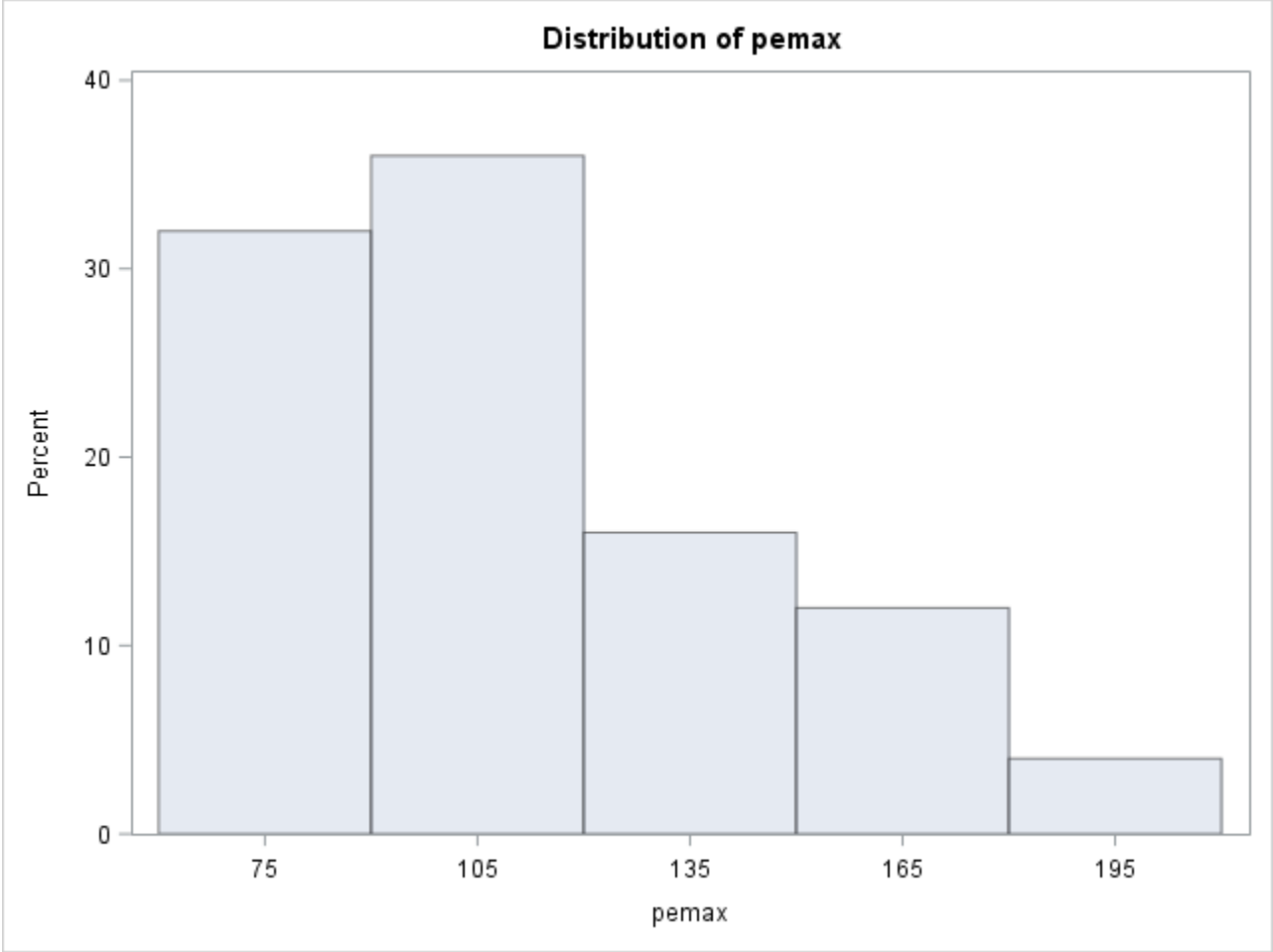
| Tests for Location: Mu0=0 | | | | |
|---|---|---|---|---|
| Test | Statistic | | p Value | |
| Student's t | t | 16.3173 | Pr > \|t\| | <.0001 |
| Sign | M | 12.5 | Pr >= \|M\| | <.0001 |
| Signed Rank | S | 162.5 | Pr >= \|S\| | <.0001 |

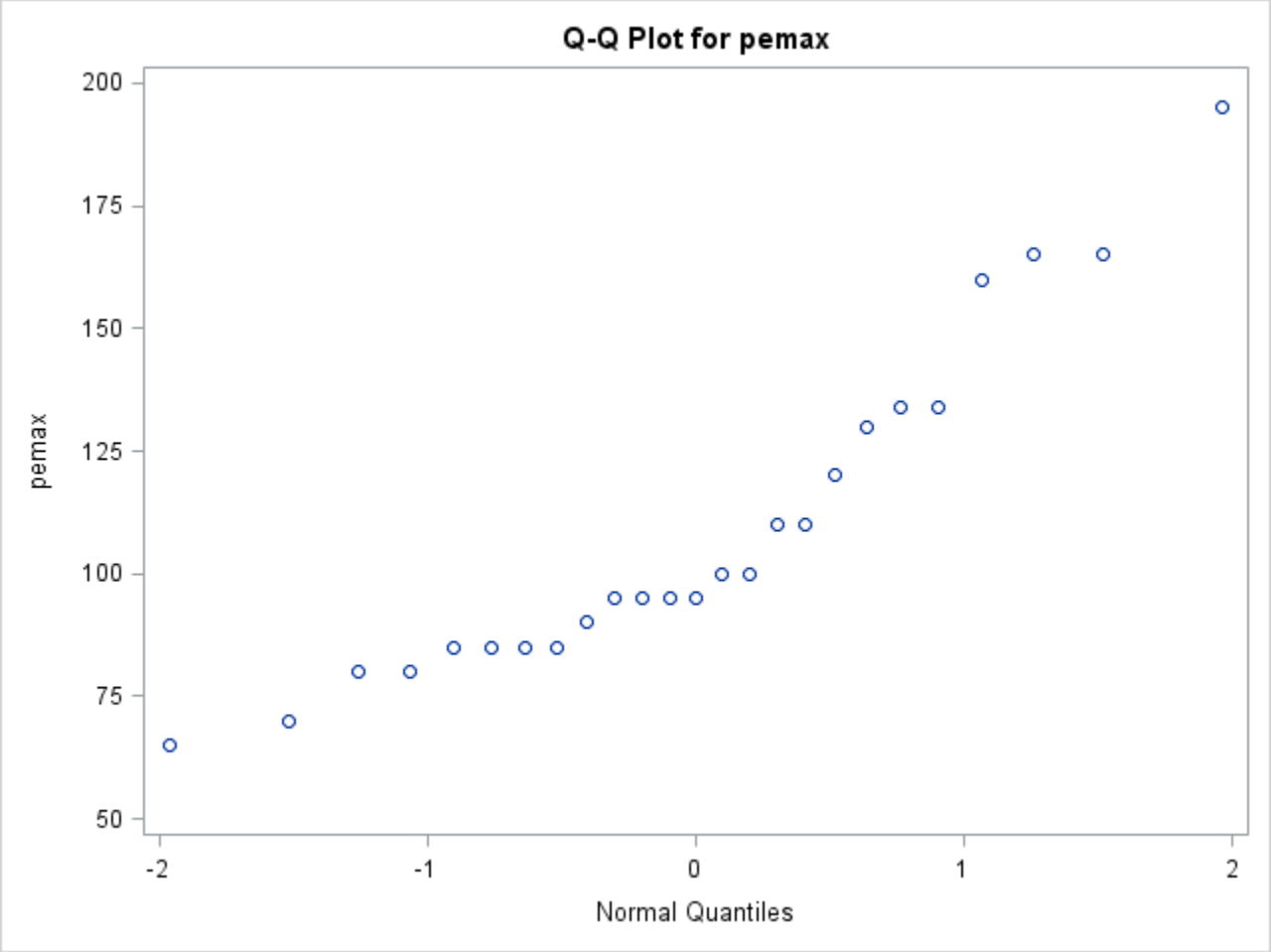
| Quantiles (Definition 5) | |
|---|---|
| Level | Quantile |
| 100% Max | 195 |
| 99% | 195 |
| 95% | 165 |
| 90% | 165 |
| 75% Q3 | 130 |
| 50% Median | 95 |
| 25% Q1 | 85 |
| 10% | 80 |
| 5% | 70 |
| 1% | 65 |
| 0% Min | 65 |

| Extreme Observations | |
|---|---|
| | |

| Lowest | | Highest | |
|---|---|---|---|
| Value | Obs | Value | Obs |
| 65 | 7 | 134 | 16 |
| 70 | 9 | 160 | 22 |
| 80 | 14 | 165 | 17 |
| 80 | 6 | 165 | 23 |
| 85 | 21 | 195 | 25 |




Distribution of pemax
Percent
40
30
20
10
0
75
105
135
165
195
pemax


Q-Q Plot for pemax
200
175
150
125
100
75
50
pemax
-2
-1
0
1
2
Normal Quantiles

# The SAS System

## The UNIVARIATE Procedure
## Variable: weight (weight)

| Moments | | | |
|---|---|---|---|
| N | 25 | Sum Weights | 25 |
| Mean | 38.404 | Sum Observations | 960.1 |
| Std Deviation | 17.8981256 | Variance | 320.3429 |
| Skewness | 0.31955752 | Kurtosis | -0.6550118 |
| Uncorrected SS | 44559.91 | Corrected SS | 7688.2296 |
| Coeff Variation | 46.6048474 | Std Error Mean | 3.57962512 |

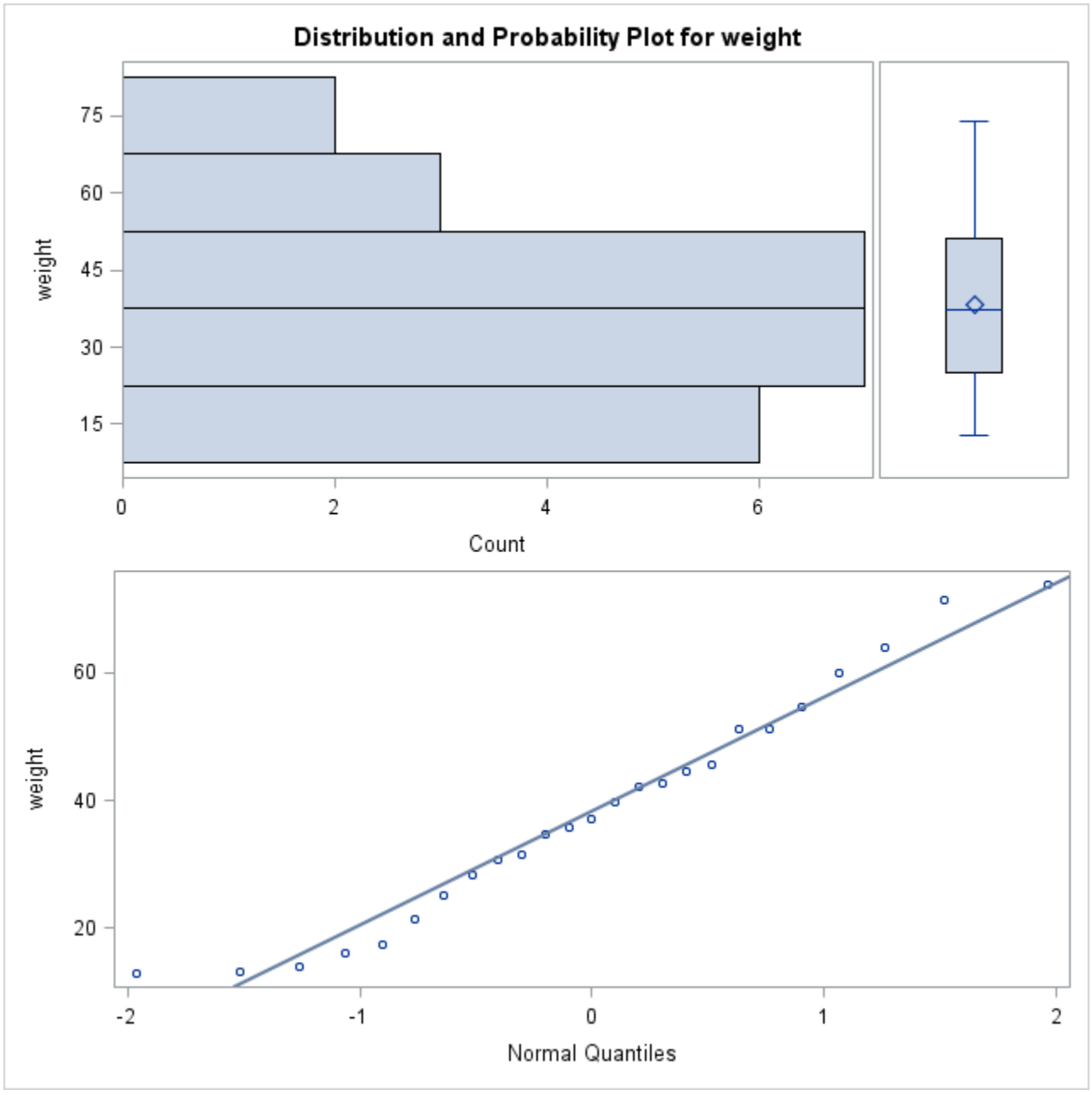
| Basic Statistical Measures | | | |
|---|---|---|---|
| Location | | Variability | |
| Mean | 38.40400 | Std Deviation | 17.89813 |
| Median | 37.20000 | Variance | 320.34290 |
| Mode | . | Range | 60.90000 |
| | | Interquartile Range | 26.00000 |

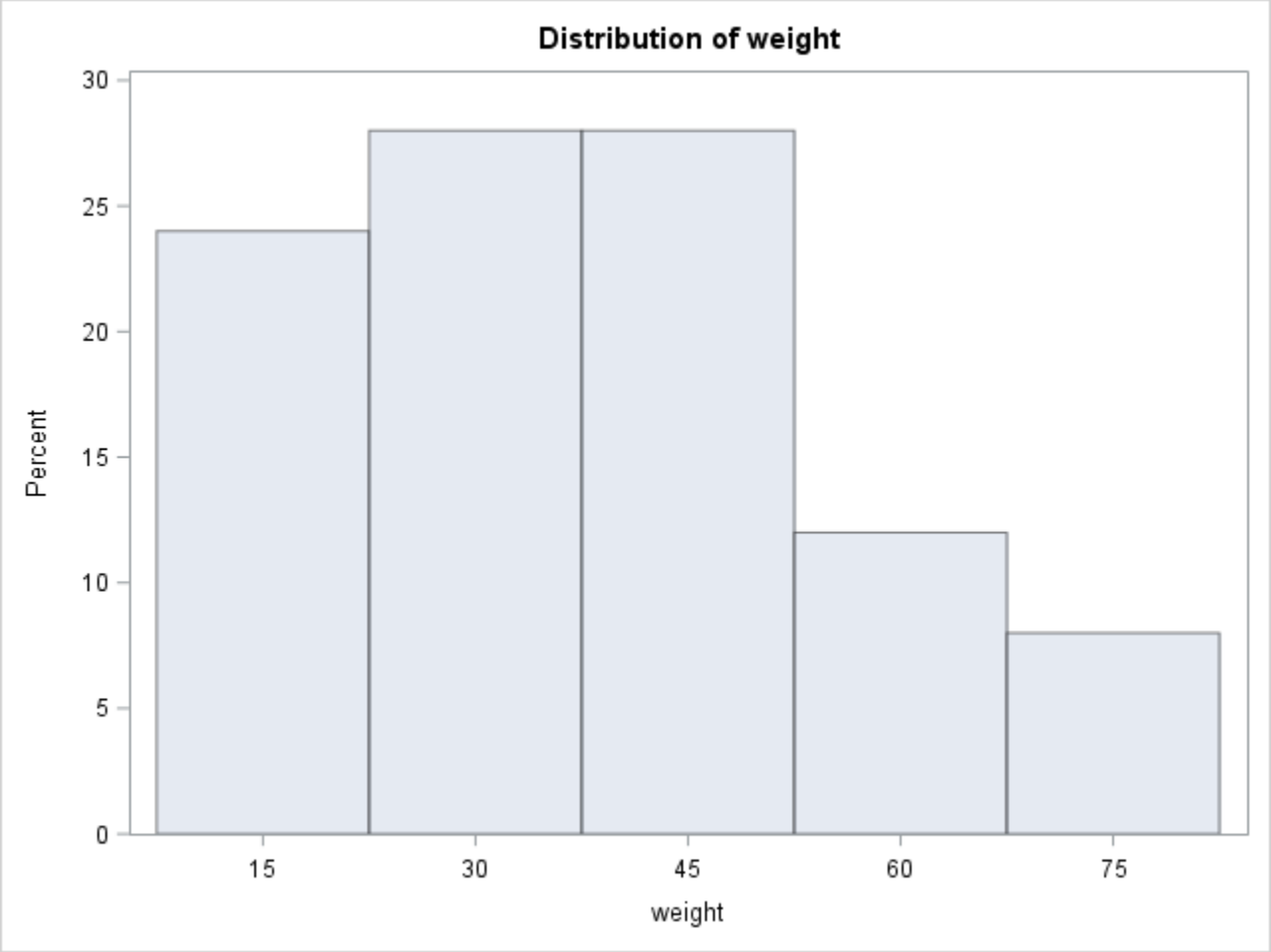
| Tests for Location: Mu0=0 | | | | |
|---|---|---|---|---|
| Test | Statistic | | p Value | |
| Student's t | t | 10.7285 | Pr > \|t\| | <.0001 |
| Sign | M | 12.5 | Pr >= \|M\| | <.0001 |
| Signed Rank | S | 162.5 | Pr >= \|S\| | <.0001 |

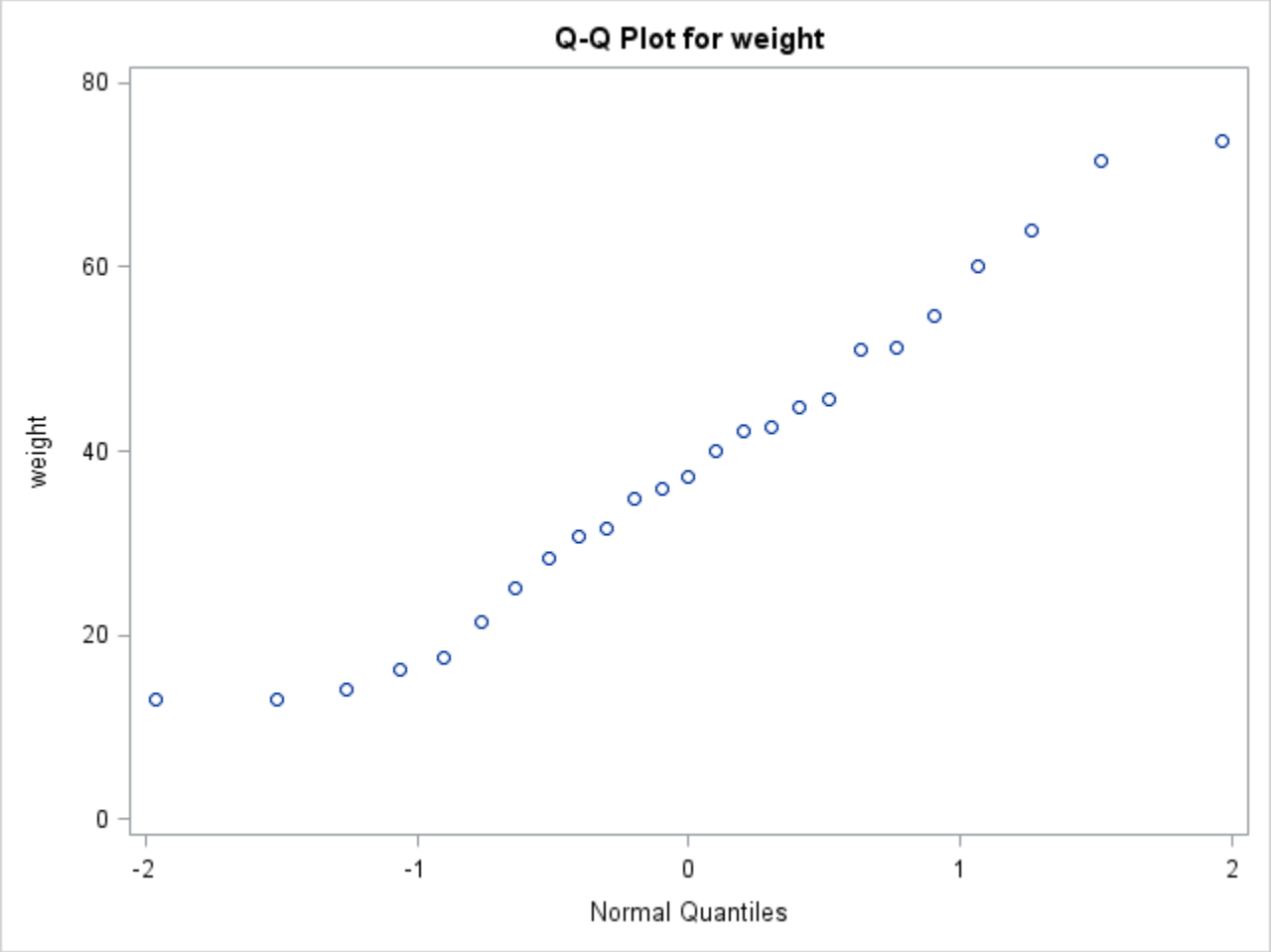
| Quantiles (Definition 5) | |
|---|---|
| Level | Quantile |
| 100% Max | 73.8 |
| 99% | 73.8 |
| 95% | 71.5 |
| 90% | 64.0 |
| 75% Q3 | 51.1 |
| 50% Median | 37.2 |
| 25% Q1 | 25.1 |
| 10% | 14.1 |
| 5% | 13.1 |
| 1% | 12.9 |
| 0% Min | 12.9 |

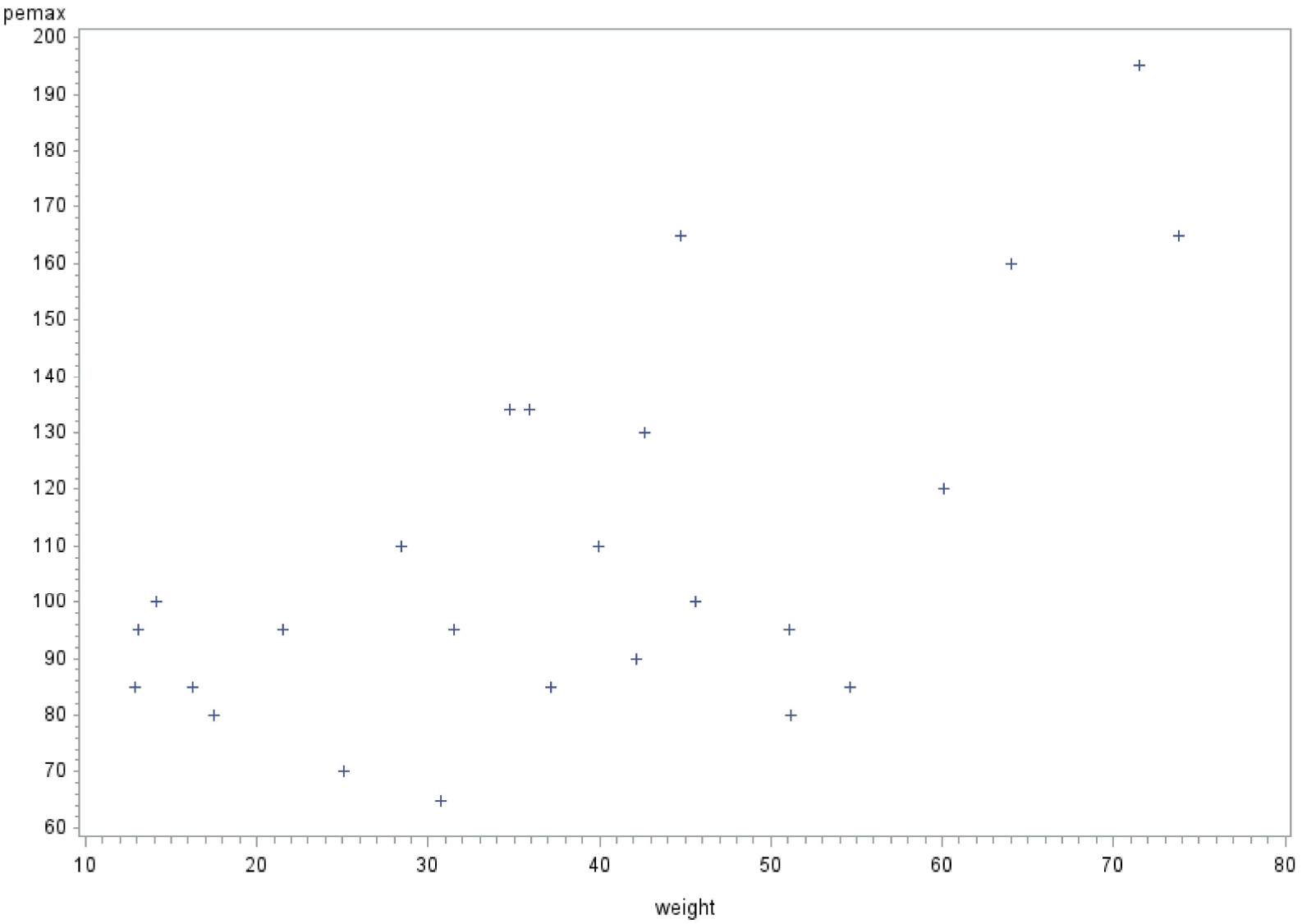
| Extreme Observations | | | |
|---|---|---|---|
| Lowest | | Highest | |
| Value | Obs | Value | Obs |

| | | | |
|---|---|---|---|
| 12.9 | 2 | 54.6 | 21 |
| 13.1 | 1 | 60.1 | 18 |
| 14.1 | 3 | 64.0 | 22 |
| 16.2 | 4 | 71.5 | 25 |
| 17.5 | 6 | 73.8 | 23 |




Distribution of weight
Percent
30
25
20
15
10
5
0
15
30
45
60
75
weight


Q-Q Plot for weight
80
60
40
20
0
weight
-2
-1
0
1
2
Normal Quantiles


pemax
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
10
20
30
40
50
60
70
80
weight

# The SAS System

## The REG Procedure
## Model: MODEL1
## Dependent Variable: pemax pemax

| | |
|---|---|
| Number of Observations Read | 25 |
| Number of Observations Used | 25 |

**Analysis of Variance**

| Source | DF | Sum of Squares | Mean Square | F Value | Pr > F |
|---|---|---|---|---|---|
| Model | 1 | 10827 | 10827 | 15.56 | 0.0006 |
| Error | 23 | 16005 | 695.89049 | | |
| Corrected Total | 24 | 26833 | | | |

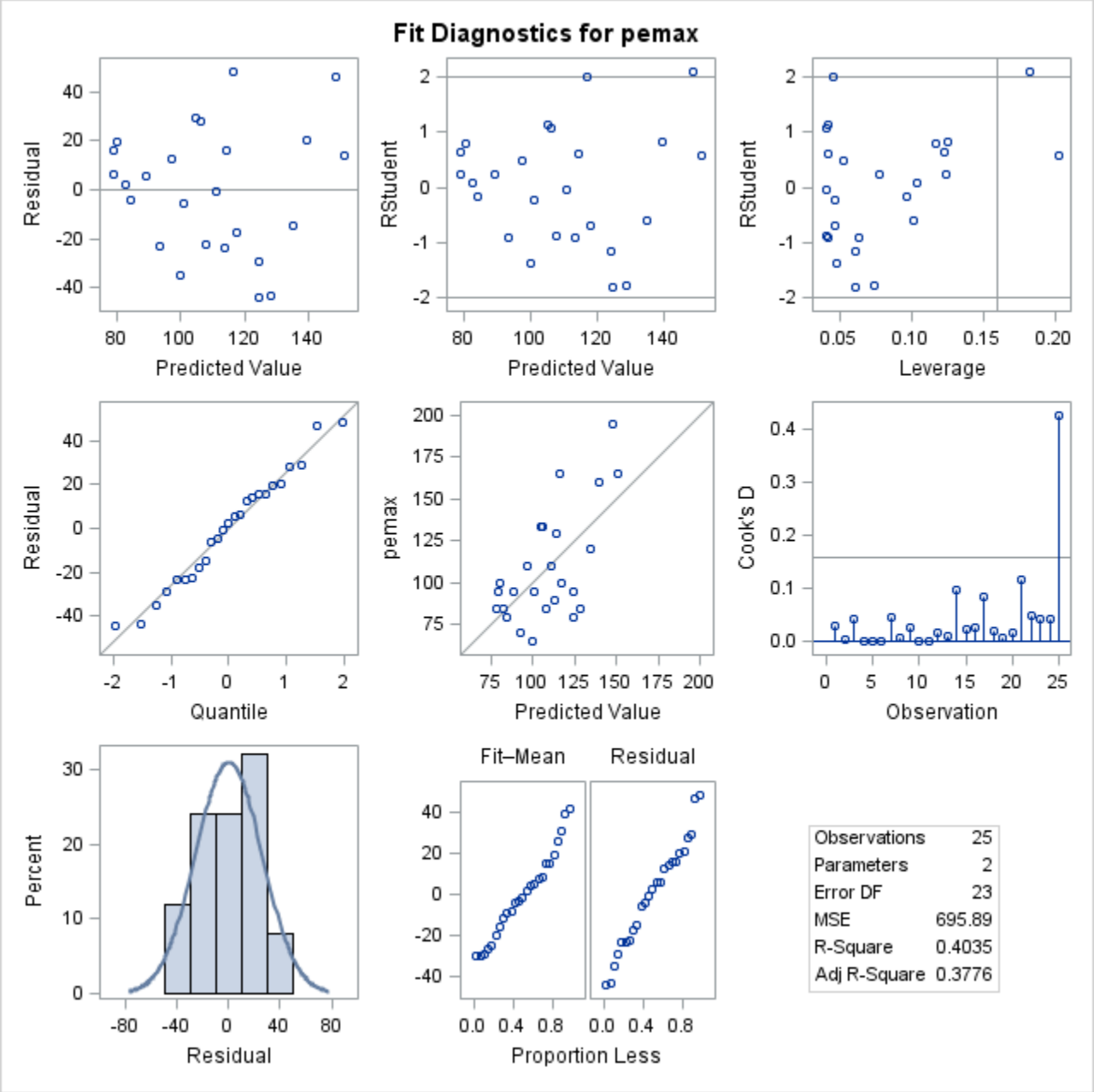
| | | | |
|---|---|---|---|
| Root MSE | 26.37974 | R-Square | 0.4035 |
| Dependent Mean | 109.12000 | Adj R-Sq | 0.3776 |
| Coeff Var | 24.17498 | | |

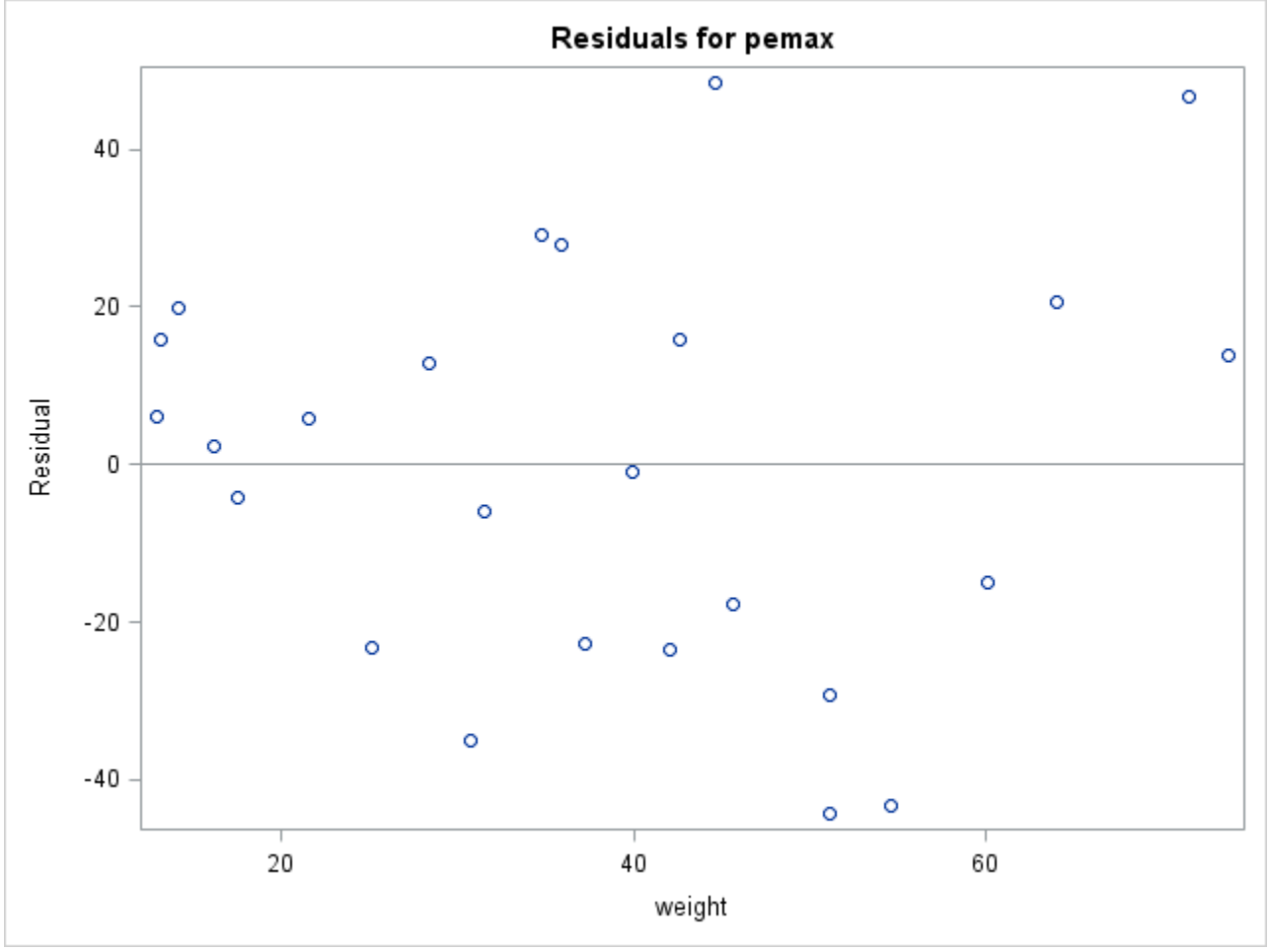
**Parameter Estimates**

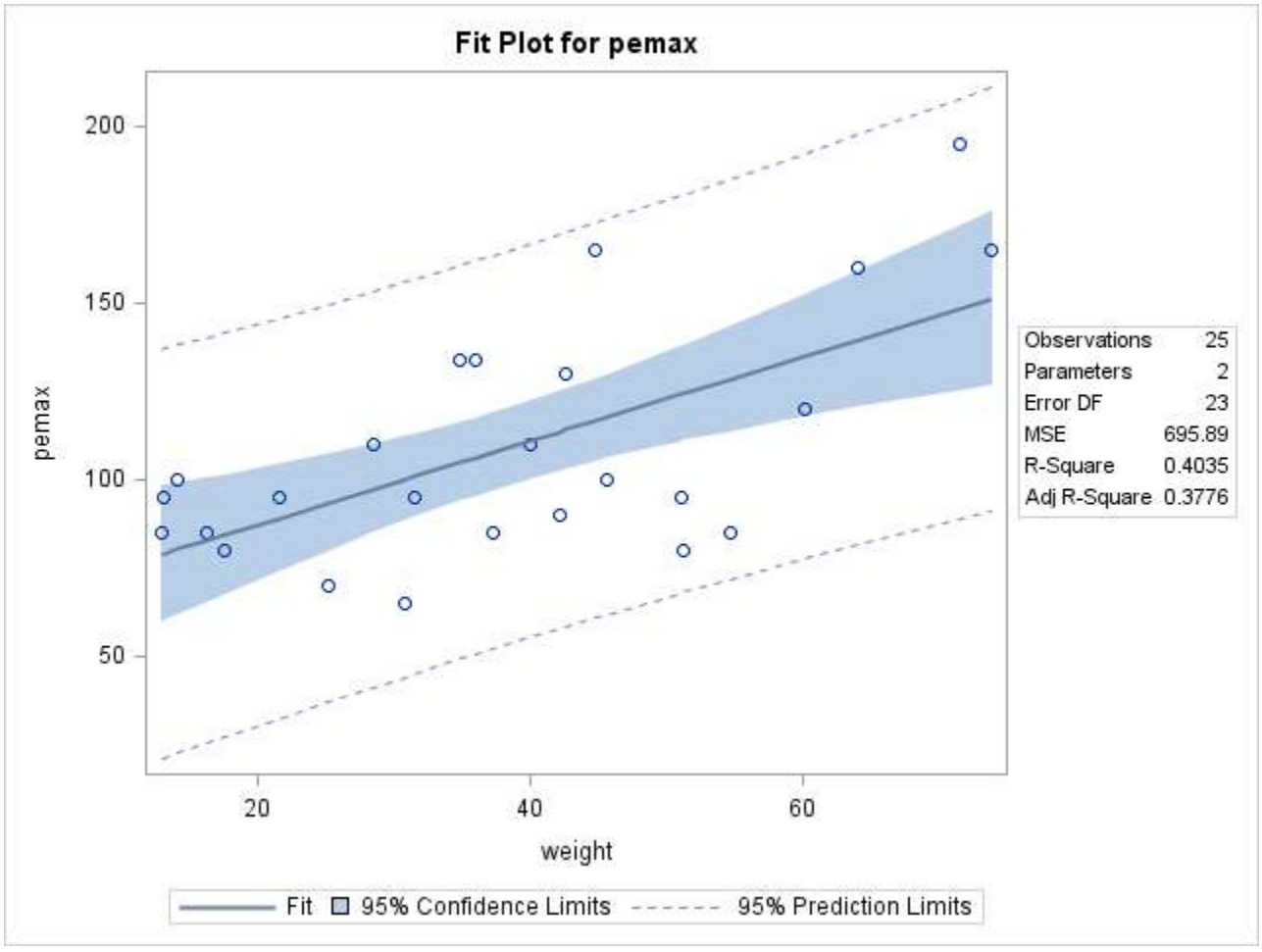
| Variable | Label | DF | Parameter Estimate | Standard Error | t Value | Pr > \|t\| | 95% Confidence Limits | |
|---|---|---|---|---|---|---|---|---|
| Intercept | Intercept | 1 | 63.54564 | 12.70163 | 5.00 | <.0001 | 37.27032 | 89.82097 |
| weight | weight | 1 | 1.18671 | 0.30086 | 3.94 | 0.0006 | 0.56434 | 1.80907 |

# The SAS System

## The REG Procedure
## Model: MODEL1
## Dependent Variable: pemax pemax




Residuals for pemax
Residual
40
20
0
-20
-40
20
40
60
weight


Fit Plot for pemax
pemax
200
150
100
50
20
40
60
weight
Observations 25
Parameters 2
Error DF 23
MSE 695.89
R-Square 0.4035
Adj R-Square 0.3776
Fit
95% Confidence Limits
95% Prediction Limits