

Archosaurs: Linear Regression

The UNIVARIATE Procedure  
Variable: Brain\_Weight (Brain Weight)

Moments			
N	21	Sum Weights	21
Mean	64.9408571	Sum Observations	1363.758
Std Deviation	90.1586664	Variance	8128.58513
Skewness	1.79138622	Kurtosis	2.95256429
Uncorrected SS	251135.316	Corrected SS	162571.703
Coeff Variation	138.831962	Std Error Mean	19.674234

Basic Statistical Measures			
Location		Variability	
Mean	64.94086	Std Deviation	90.15867
Median	25.00000	Variance	8129
Mode	14.00000	Range	334.85200
		Interquartile Range	95.70000

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

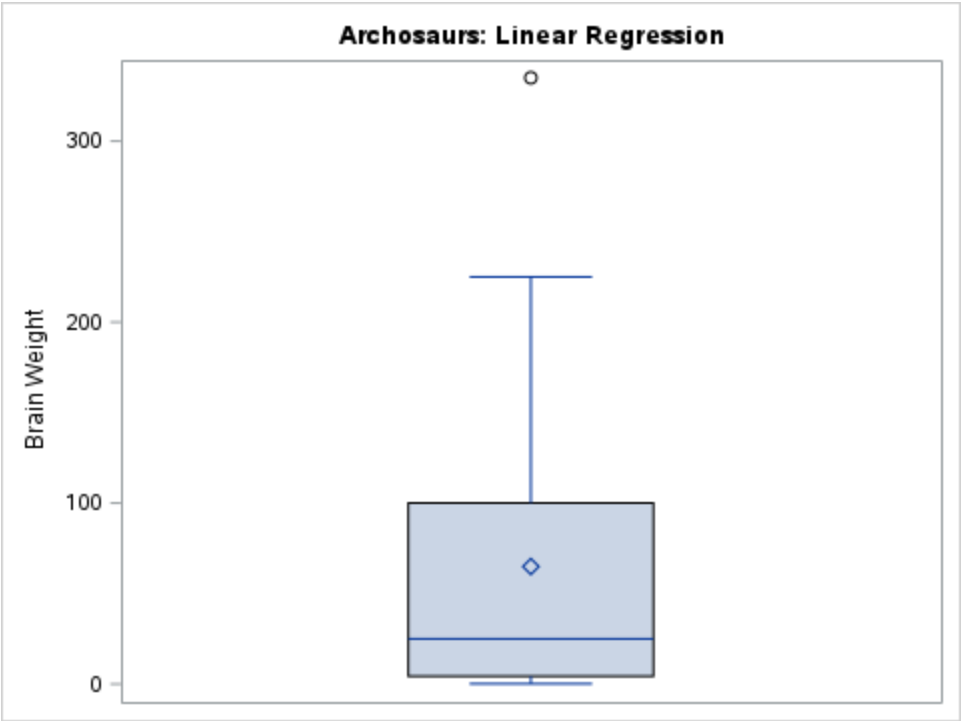
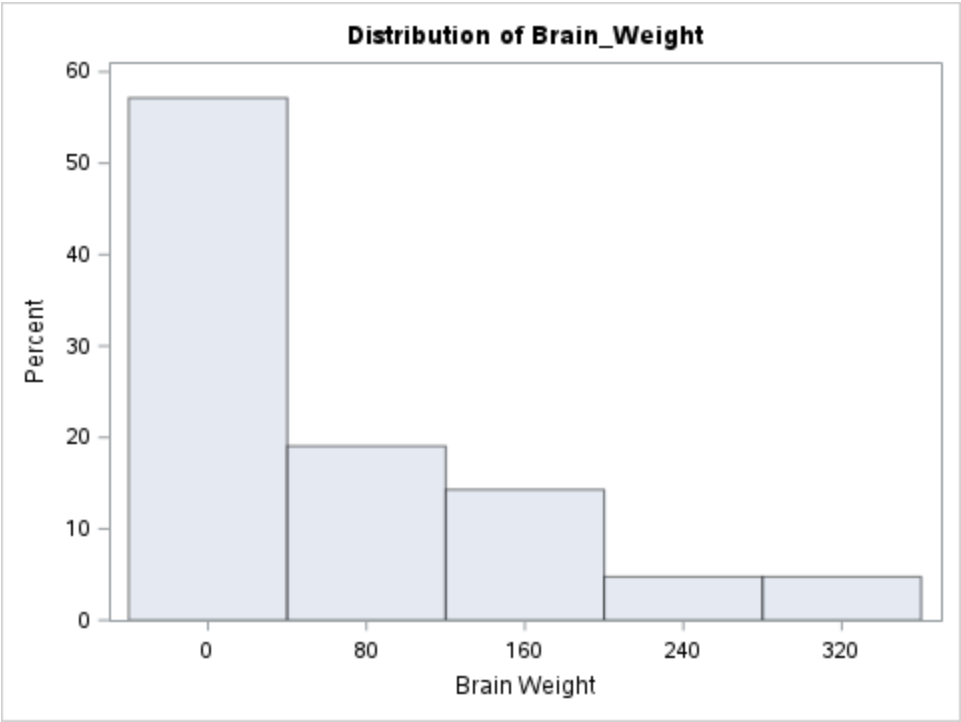
Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	3.300807	Pr >  t	0.0036
Sign	M	10.5	Pr >=  M	<.0001
Signed Rank	S	115.5	Pr >=  S	<.0001

Quantiles (Definition 5)	
Level	Quantile
100% Max	335.000
99%	335.000
95%	225.000
90%	175.000
75% Q3	100.000
50% Median	25.000
25% Q1	4.300
10%	0.710
5%	0.400
1%	0.148
0% Min	0.148

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
0.148	1	140	7
0.400	2	140	11
0.710	4	175	6
1.500	5	225	17
1.700	18	335	9

Archosaurs: Linear Regression

The UNIVARIATE Procedure



Archosaurs: Linear Regression

The UNIVARIATE Procedure  
Variable: Body\_Weight (Body Weight)

Moments			
N	21	Sum Weights	21

Moments			
Mean	7472.37129	Sum Observations	156919.797
Std Deviation	19770.4582	Variance	390871016
Skewness	2.93112824	Kurtosis	7.47034267
Uncorrected SS	8989983312	Corrected SS	7817420327
Coeff Variation	264.580779	Std Error Mean	4314.26767

Basic Statistical Measures			
Location		Variability	
Mean	7472.371	Std Deviation	19770
Median	173.600	Variance	390871016
Mode	173.600	Range	70000
		Interquartile Range	2217

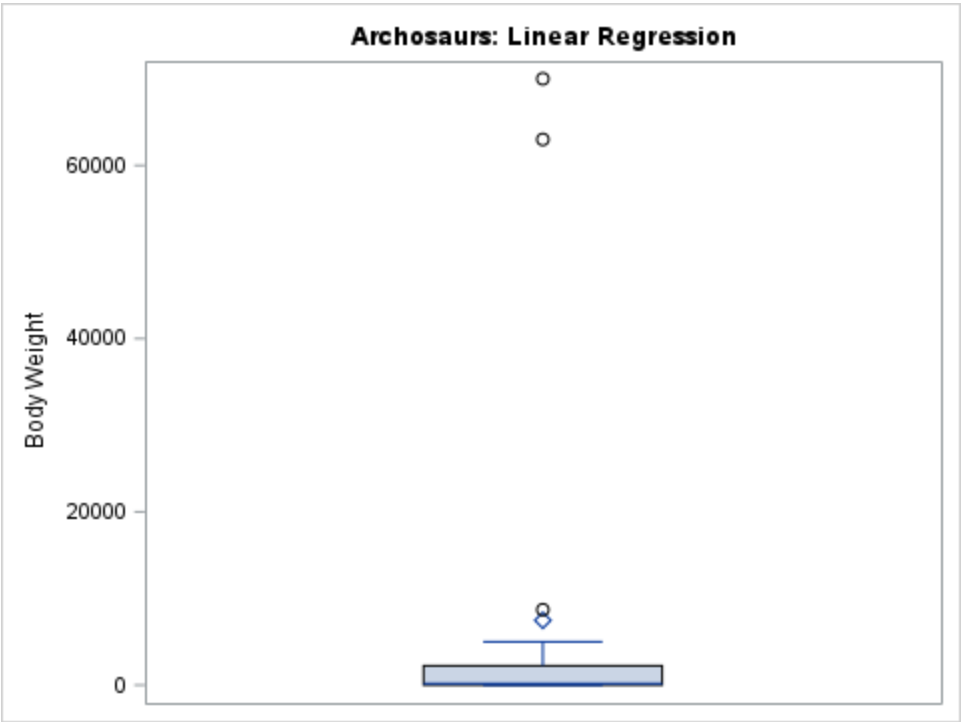
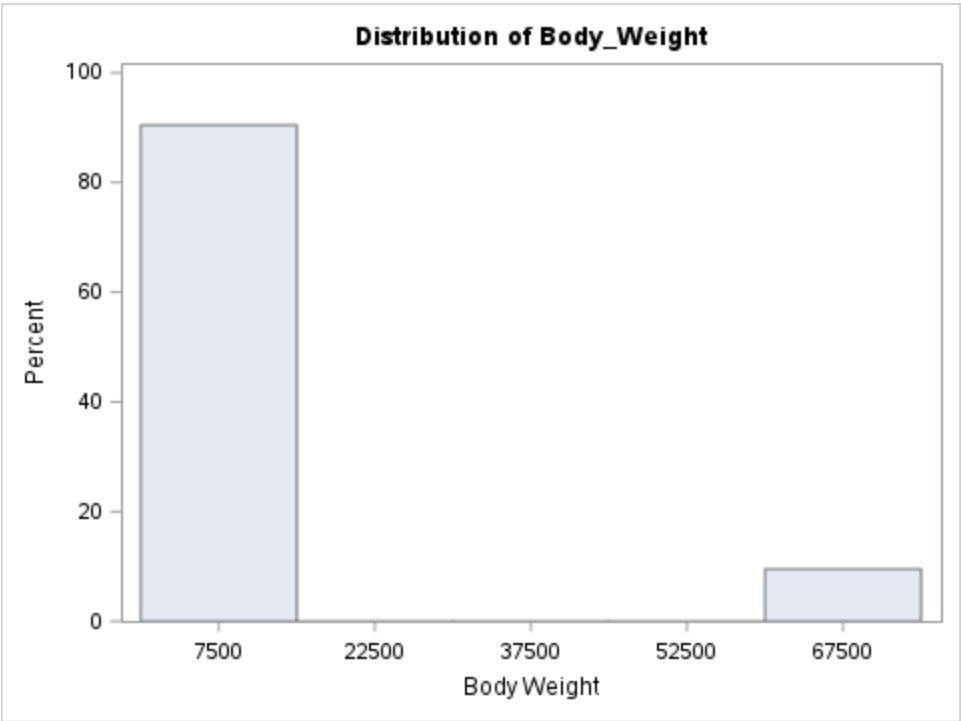
Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	1.732014	Pr >  t	0.0987
Sign	M	10.5	Pr >=  M	<.0001
Signed Rank	S	115.5	Pr >=  S	<.0001

Quantiles (Definition 5)	
Level	Quantile
100% Max	70000.000
99%	70000.000
95%	63000.000
90%	8700.000
75% Q3	2236.000
50% Median	173.600
25% Q1	19.000
10%	0.430
5%	0.334
1%	0.063
0% Min	0.063

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
0.063	1	3008	11
0.334	4	5000	17
0.430	18	8700	10
0.490	2	63000	7
1.380	5	70000	9

Archosaurs: Linear Regression

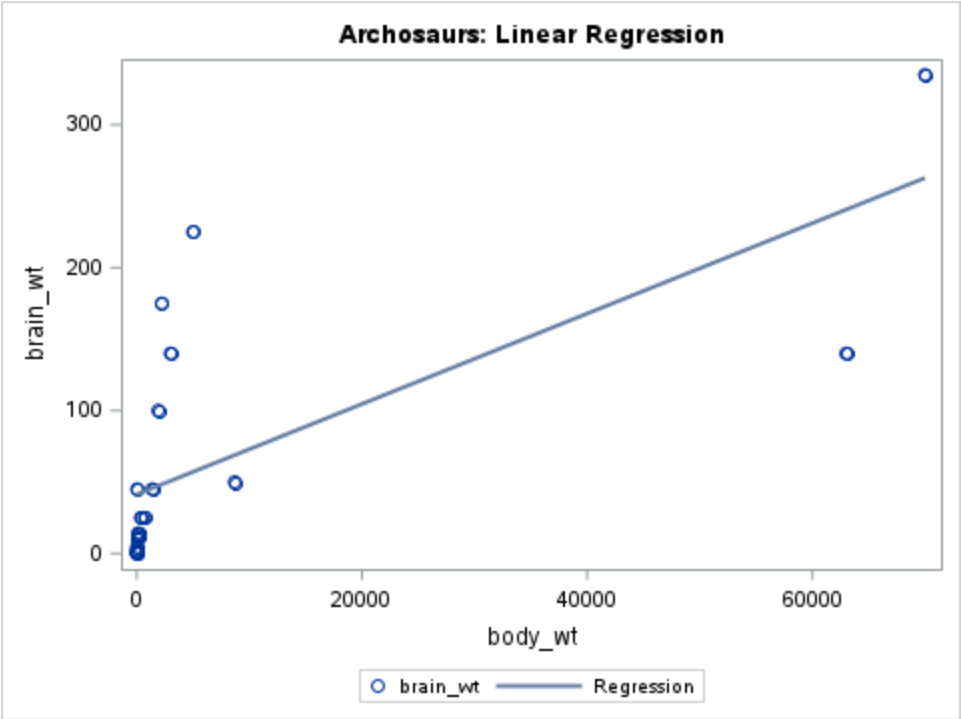
The UNIVARIATE Procedure



**Archosaurs: Linear Regression**

The CONTENTS Procedure

Alphabetic List of Variables for WORK.BRAIN
Body_Weight Brain_Weight Details Type



Archosaurs: Linear Regression

The REG Procedure  
Model: MODEL1  
Dependent Variable: Brain\_Weight Brain Weight

Number of Observations Read	21
Number of Observations Used	21

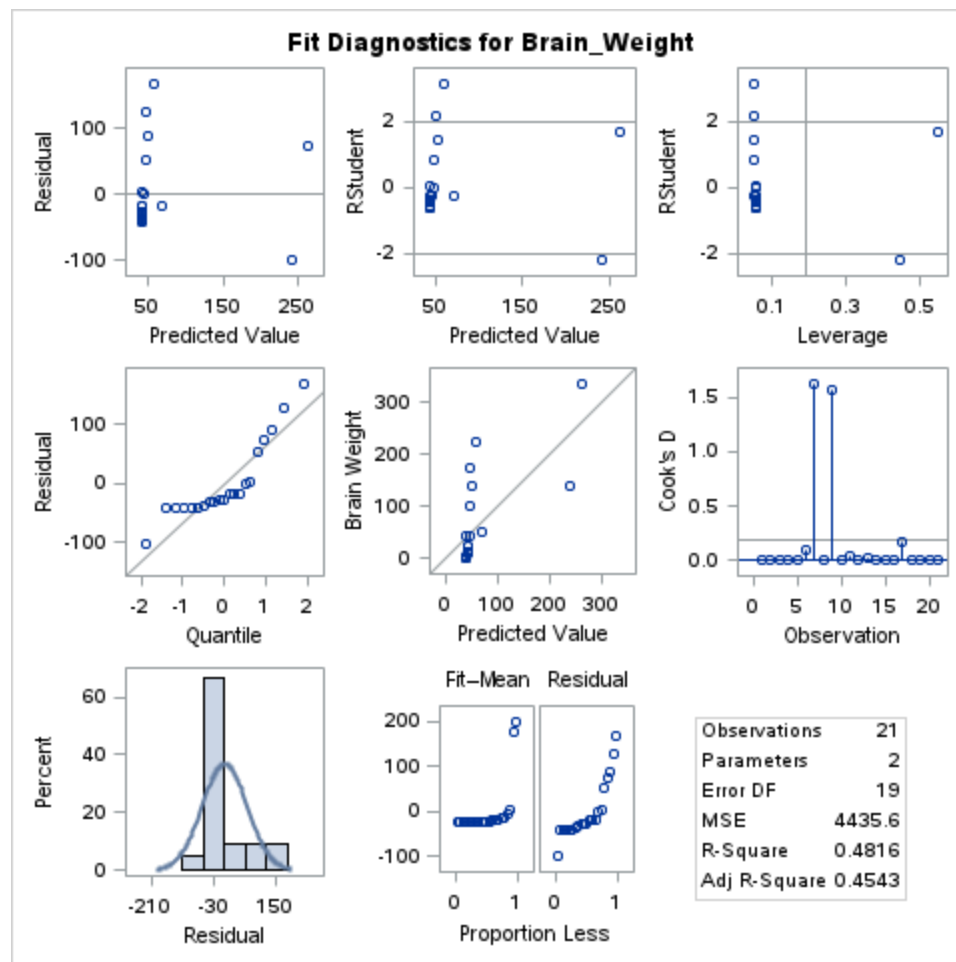
Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	78295	78295	17.65	0.0005
Error	19	84276	4435.59993		
Corrected Total	20	162572			

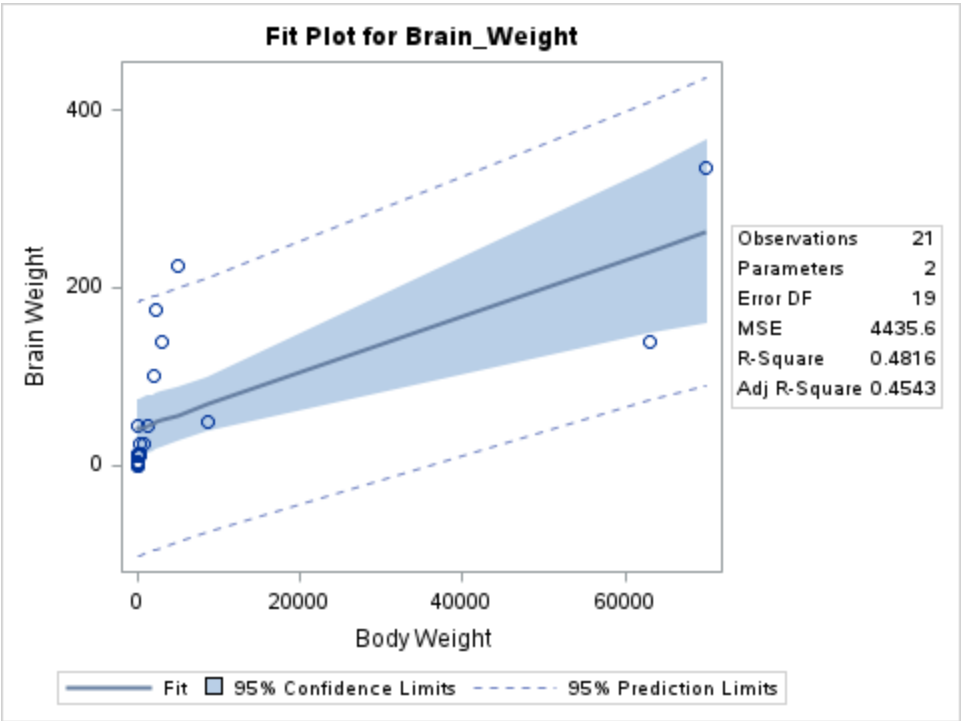
Root MSE	66.60030	R-Square	0.4816
Dependent Mean	64.94086	Adj R-Sq	0.4543
Coeff Var	102.55531		

Parameter Estimates						
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	Intercept	1	41.29285	15.58527	2.65	0.0158
Body_Weight	Body Weight	1	0.00316	0.00075326	4.20	0.0005

Archosaurs: Linear Regression

The REG Procedure  
Model: MODEL1  
Dependent Variable: Brain\_Weight Brain Weight





**Archosaurs: Linear Regression with Logarithm**

The CONTENTS Procedure

Alphabetic List of Variables for WORK.BRAIN	
Body_Weight	Brain_Weight
Details Type	

**Archosaurs: Linear Regression with Logarithm**

The UNIVARIATE Procedure  
Variable: log\_brain\_wt

Moments			
N	21	Sum Weights	21
Mean	2.76845535	Sum Observations	58.1375623
Std Deviation	2.19662673	Variance	4.82516897
Skewness	-0.6159685	Kurtosis	-0.4776154
Uncorrected SS	257.454625	Corrected SS	96.5033794
Coeff Variation	79.3448494	Std Error Mean	0.47934325

Basic Statistical Measures			
Location		Variability	
Mean	2.768455	Std Deviation	2.19663
Median	3.218876	Variance	4.82517
Mode	2.639057	Range	7.72467
		Interquartile Range	3.14656

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

Tests for Location: Mu0=0		
Test	Statistic	p Value

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	5.775518	Pr >  t	<.0001
Sign	M	7.5	Pr >=  M	0.0015
Signed Rank	S	104.5	Pr >=  S	<.0001

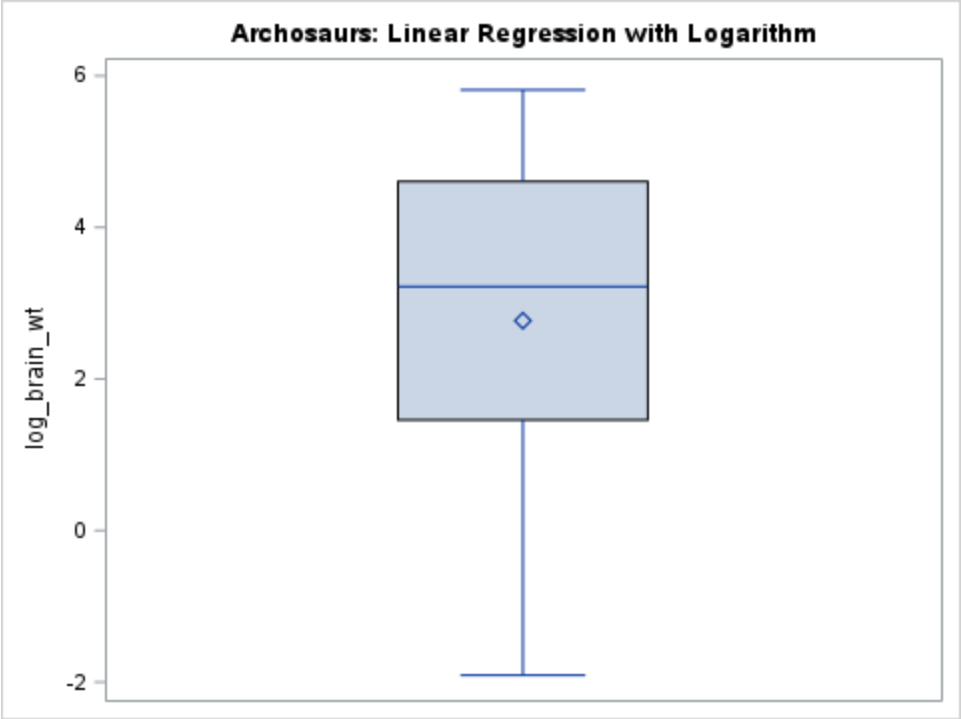
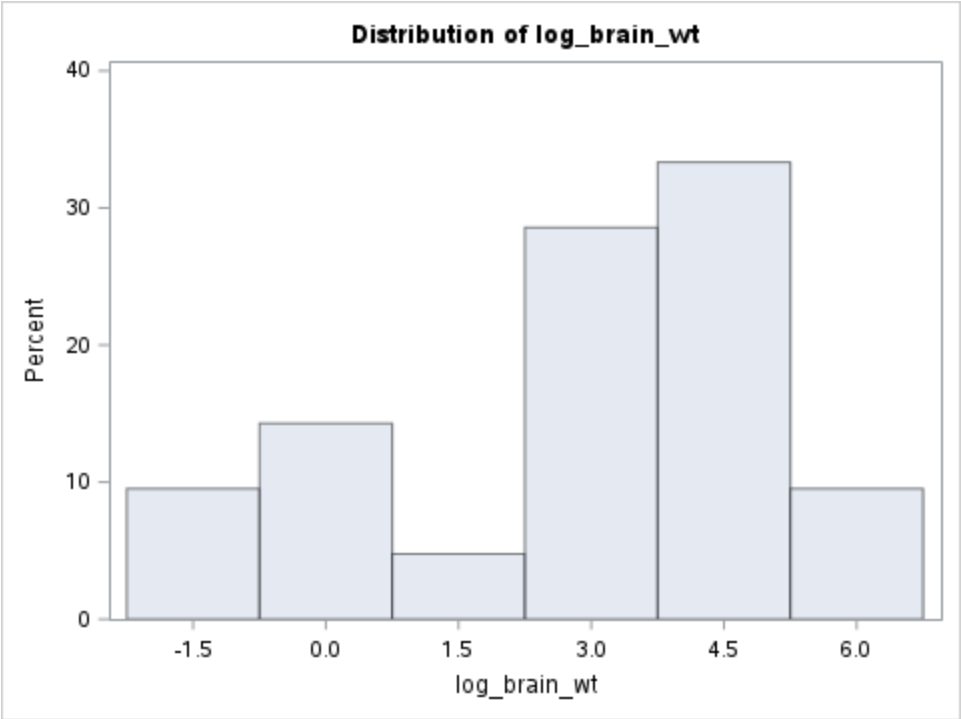
Quantiles (Definition 5)	
Level	Quantile
100% Max	5.814131
99%	5.814131
95%	5.416100
90%	5.164786
75% Q3	4.605170
50% Median	3.218876
25% Q1	1.458615
10%	-0.342490
5%	-0.916291
1%	-1.910543
0% Min	-1.910543

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
-1.910543	1	4.94164	7
-0.916291	2	4.94164	11
-0.342490	4	5.16479	6
0.405465	5	5.41610	17
0.530628	18	5.81413	9

Archosaurs: Linear Regression with Logarithm

The UNIVARIATE Procedure





**Archosaurs: Linear Regression with Logarithm**

The UNIVARIATE Procedure  
Variable: log\_body\_wt

Moments			
N	21	Sum Weights	21
Mean	4.94639731	Sum Observations	103.874344
Std Deviation	4.0443549	Variance	16.3568065
Skewness	-0.4150749	Kurtosis	-0.7188243

Moments			
Uncorrected SS	840.939904	Corrected SS	327.136131
Coeff Variation	81.7636482	Std Error Mean	0.88255059

Basic Statistical Measures			
Location		Variability	
Mean	4.946397	Std Deviation	4.04435
Median	5.156754	Variance	16.35681
Mode	5.156754	Range	13.92087
		Interquartile Range	4.76800

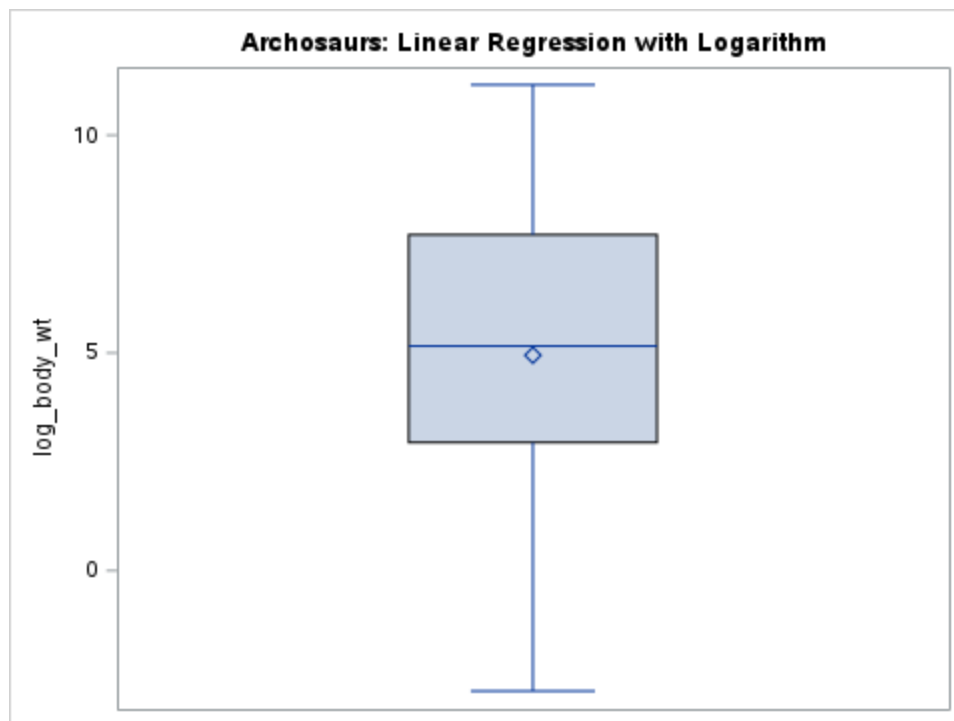
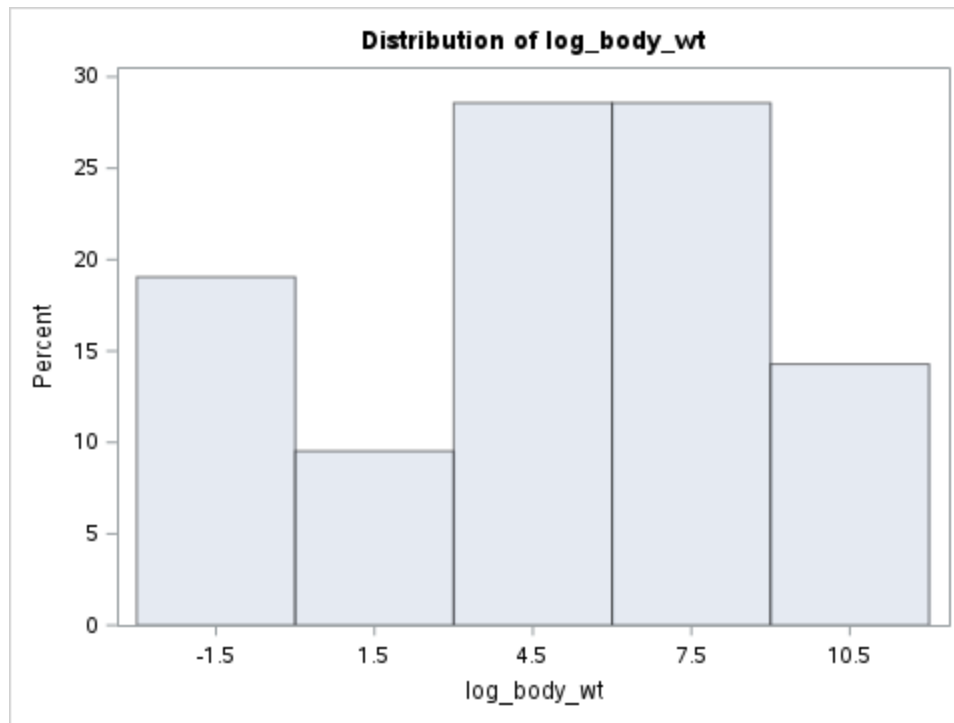
Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	5.604661	Pr >  t	<.0001
Sign	M	6.5	Pr >=  M	0.0072
Signed Rank	S	101.5	Pr >=  S	<.0001

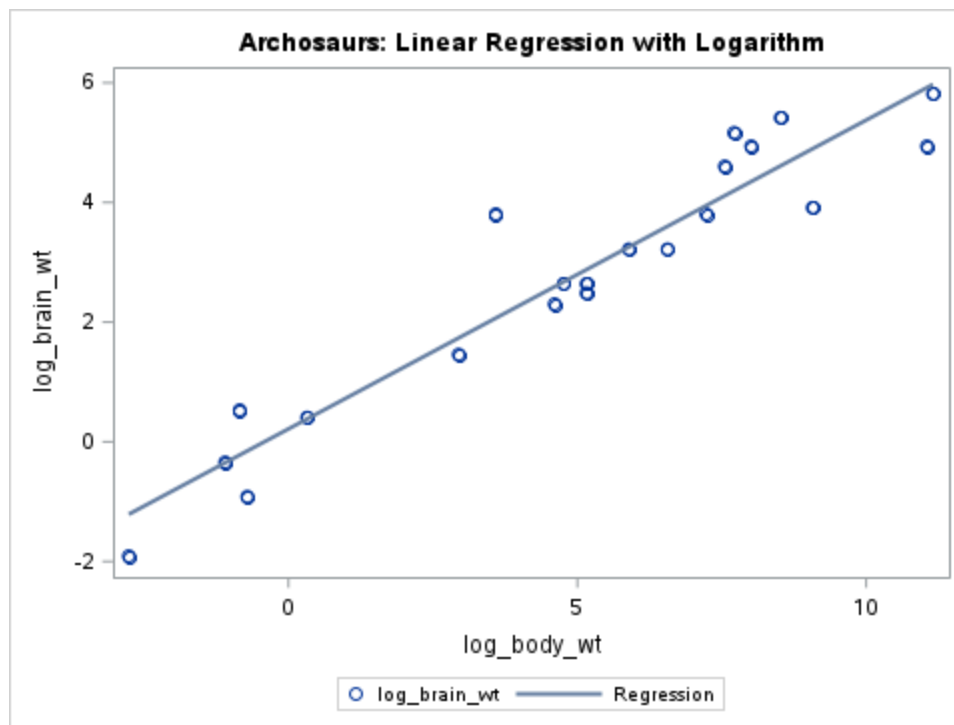
Quantiles (Definition 5)	
Level	Quantile
100% Max	11.15625
99%	11.15625
95%	11.05089
90%	9.07108
75% Q3	7.71244
50% Median	5.15675
25% Q1	2.94444
10%	-0.84397
5%	-1.09661
1%	-2.76462
0% Min	-2.76462

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
-2.764621	1	8.00903	11
-1.096614	4	8.51719	17
-0.843970	18	9.07108	10
-0.713350	2	11.05089	7
0.322083	5	11.15625	9

## Archosaurs: Linear Regression with Logarithm

### The UNIVARIATE Procedure





### Archosaurs: Linear Regression with Logarithm

The REG Procedure

Model: MODEL1

Dependent Variable: log\_brain\_wt

Number of Observations Read	21
Number of Observations Used	21

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	87.17316	87.17316	177.52	<.0001
Error	19	9.33022	0.49106		
Corrected Total	20	96.50338			

Root MSE	0.70076	R-Square	0.9033
Dependent Mean	2.76846	Adj R-Sq	0.8982
Coeff Var	25.31230		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	1	0.21507	0.24518	0.88	0.3913
log_body_wt	1	0.51621	0.03874	13.32	<.0001

### Archosaurs: Linear Regression with Logarithm

The REG Procedure

Model: MODEL1

Dependent Variable: log\_brain\_wt

