3/24/2019 Results: Tutorial 7 Q2.sas

## **Tutorial 7 Question 2 One way ANOVA**

The UNIVARIATE Procedure Variable: resid

Moments				
N	18	Sum Weights	18	
Mean	0	Sum Observations	0	
Std Deviation	1.2213782	Variance	1.49176471	
Skewness	0.54116092	Kurtosis	0.06403611	
Uncorrected SS	25.36	Corrected SS	25.36	
Coeff Variation		Std Error Mean	0.2878816	

	Basic Statistical Measures			
Location Variability				
Mean	0.00000	Std Deviation	1.22138	
Median	-0.06667	Variance	1.49176	
Mode	-0.93333	Range	4.60000	
		Interquartile Range	1.80000	

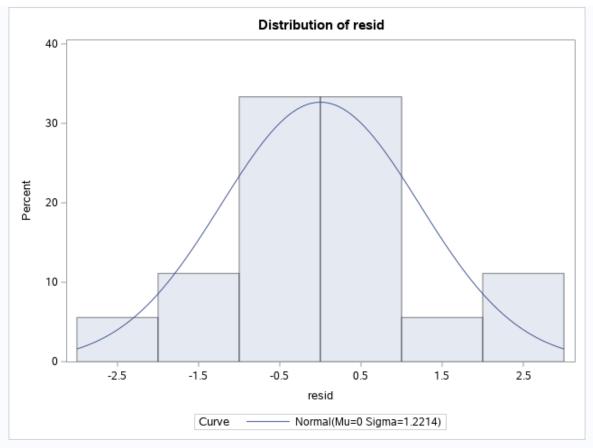
Tests for Location: Mu0=0					
Test	Stat	istic	p Val	p Value	
Student's t	t	0	Pr >  t	1.0000	
Sign	М	0	Pr >=  M	1.0000	
Signed Rank	S	-5	Pr >=  S	0.8400	

Quantiles (Definition 5)			
Level	Quantile		
100% Max	2.5333333		
99%	2.5333333		
95%	2.5333333		
90%	2.2666667		
75% Q3	0.8666667		
50% Median	-0.0666667		
25% Q1	-0.9333333		
10%	-1.5333333		
5%	-2.0666667		
1%	-2.0666667		
0% Min	-2.0666667		

Extreme Observations				
Lowest		Highest		
Value	Obs	Value	Obs	
-2.066667	6	0.866667	13	
-1.533333	17	0.933333	7	
-1.066667	5	1.133333	2	
-0.933333	18	2.266667	14	
-0.933333	16	2.533333	1	

**Tutorial 7 Question 2 One way ANOVA** 

The UNIVARIATE Procedure



**Tutorial 7 Question 2 One way ANOVA** 

The UNIVARIATE Procedure Fitted Normal Distribution for resid

Parameters for Normal Distribution			
Parameter	rameter Symbol Estimate		
Mean	Mu	0	
Std Dev	Sigma	1.221378	

Goodness-of-Fit Tests for Normal Distribution				
Test	S	tatistic	p Value	
Kolmogorov-Smirnov	D 0.11468122		Pr > D	>0.150
Cramer-von Mises	W-Sq	0.03947703	Pr > W-Sq	>0.250
Anderson-Darling	A-Sq	0.27599312	Pr > A-Sq	>0.250

<b>Quantiles for Normal Distribution</b>			
	Quantile		
Percent	Observed	Estimated	
1.0	-2.06667	-2.84135	
5.0	-2.06667	-2.00899	
10.0	-1.53333	-1.56526	
25.0	-0.93333	-0.82381	
50.0	-0.06667	0.00000	
75.0	0.86667	0.82381	
90.0	2.26667	1.56526	
95.0	2.53333	2.00899	
99.0	2.53333	2.84135	

**Tutorial 7 Question 2 One way ANOVA** 

The UNIVARIATE Procedure

