

The SAS System**The GLM Procedure**

Class Level Information		
Class	Levels	Values
A	2	-1 1
B	2	-1 1
C	2	-1 1

Number of Observations Read	24
Number of Observations Used	24

The SAS System

The GLM Procedure

Dependent Variable: resp

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	7	1612.666667	230.380952	7.64	0.0004
Error	16	482.666667	30.166667		
Corrected Total	23	2095.333333			

R-Square	Coeff Var	Root MSE	resp Mean
0.769647	13.45082	5.492419	40.83333

Source	DF	Type I SS	Mean Square	F Value	Pr > F
A	1	0.6666667	0.6666667	0.02	0.8837
B	1	770.6666667	770.6666667	25.55	0.0001
A*B	1	16.6666667	16.6666667	0.55	0.4681
C	1	280.1666667	280.1666667	9.29	0.0077
A*C	1	468.1666667	468.1666667	15.52	0.0012
B*C	1	48.1666667	48.1666667	1.60	0.2245
A*B*C	1	28.1666667	28.1666667	0.93	0.3483

Source	DF	Type III SS	Mean Square	F Value	Pr > F
A	1	0.6666667	0.6666667	0.02	0.8837
B	1	770.6666667	770.6666667	25.55	0.0001
A*B	1	16.6666667	16.6666667	0.55	0.4681
C	1	280.1666667	280.1666667	9.29	0.0077
A*C	1	468.1666667	468.1666667	15.52	0.0012
B*C	1	48.1666667	48.1666667	1.60	0.2245
A*B*C	1	28.1666667	28.1666667	0.93	0.3483

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The UNIVARIATE Procedure Variable: res

Moments			
N	24	Sum Weights	24
Mean	0	Sum Observations	0
Std Deviation	4.58099413	Variance	20.9855072
Skewness	0.71627808	Kurtosis	-0.4591412
Uncorrected SS	482.666667	Corrected SS	482.666667
Coeff Variation	.	Std Error Mean	0.93509151

Basic Statistical Measures			
Location		Variability	
Mean	0.00000	Std Deviation	4.58099
Median	-1.16667	Variance	20.98551
Mode	-5.66667	Range	16.00000
		Interquartile Range	8.00000

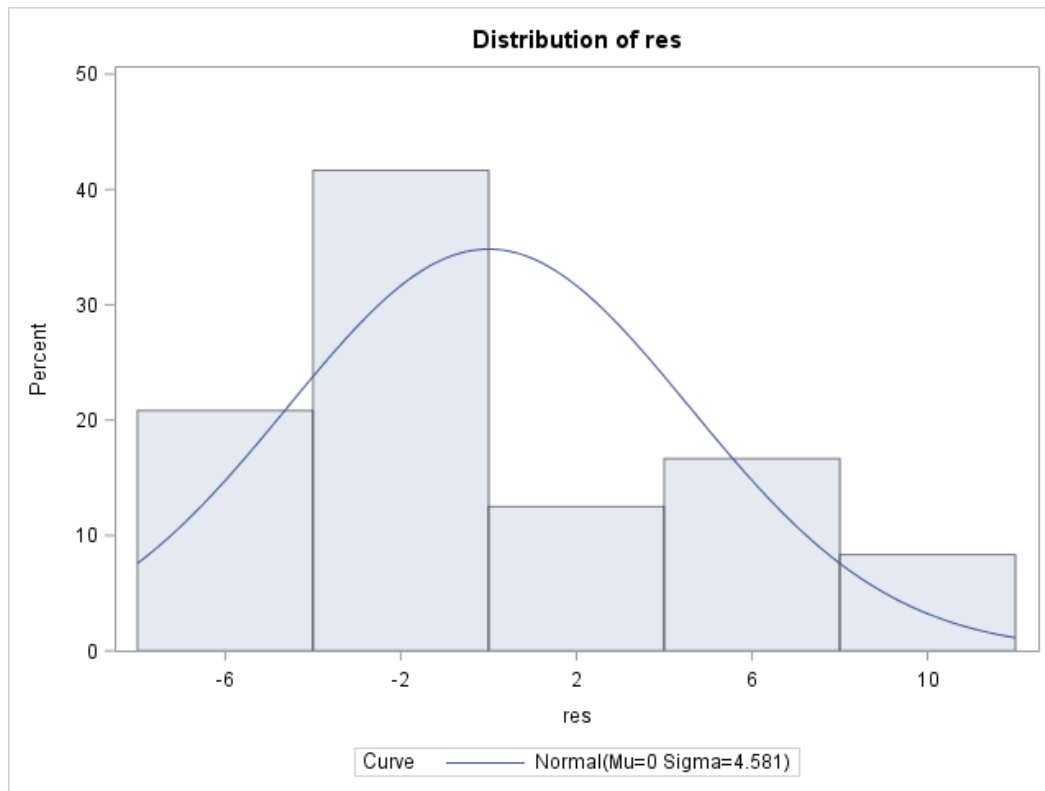
Note: The mode displayed is the smallest of 4 modes with a count of 2.

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	0	Pr > t 	1.0000
Sign	M	-3	Pr >= M 	0.3075
Signed Rank	S	-6.5	Pr >= S 	0.8571

Quantiles (Definition 4)	
Level	Quantile
100% Max	10.33333
99%	10.33333
95%	9.83333
90%	7.00000
75% Q3	4.16667
50% Median	-1.16667
25% Q1	-3.83333
10%	-5.16667
5%	-5.66667
1%	-5.66667
0% Min	-5.66667

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs

-5.66667	8	5.00000	2
-5.66667	6	5.33333	19
-4.66667	20	5.66667	10
-4.66667	7	8.33333	5
-4.33333	15	10.33333	9

The SAS System**The UNIVARIATE Procedure**

The SAS System

The UNIVARIATE Procedure Fitted Normal Distribution for res

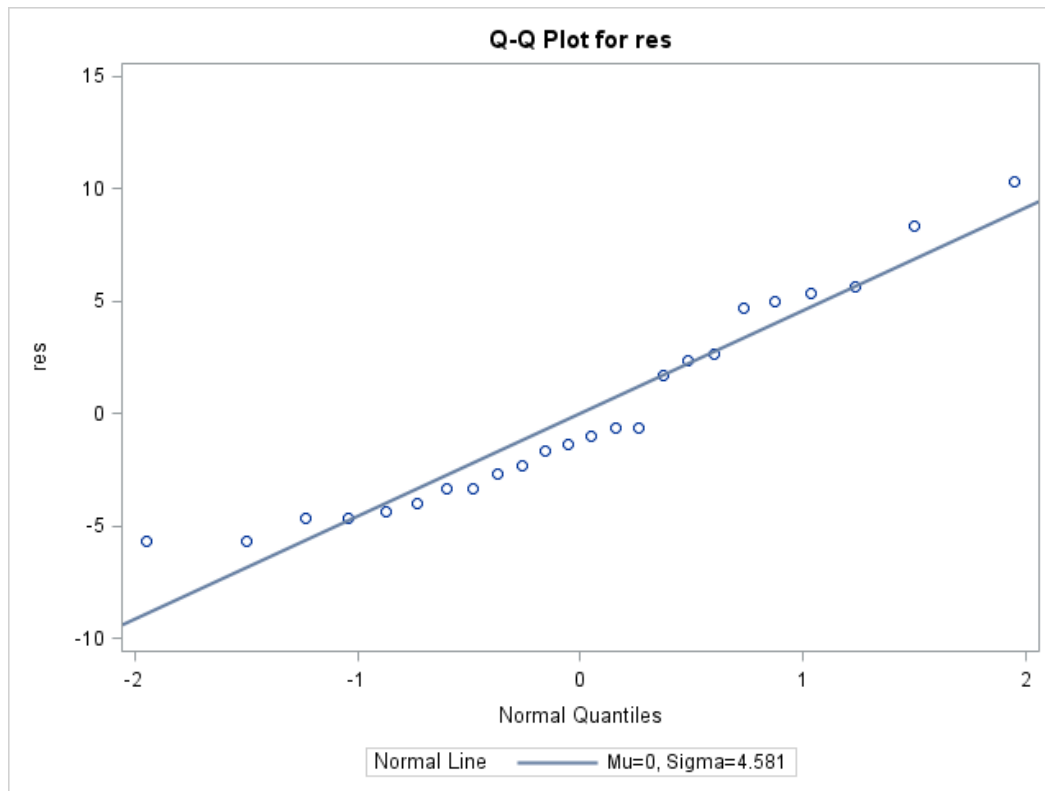
Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	0
Std Dev	Sigma	4.580994

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.18285332	Pr > D	0.037
Cramer-von Mises	W-Sq	0.11576255	Pr > W-Sq	0.068
Anderson-Darling	A-Sq	0.67378068	Pr > A-Sq	0.073

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	-5.66667	-10.6570
5.0	-5.66667	-7.5351
10.0	-5.16667	-5.8708
25.0	-3.83333	-3.0898
50.0	-1.16667	0.0000
75.0	4.16667	3.0898
90.0	7.00000	5.8708
95.0	9.83333	7.5351
99.0	10.33333	10.6570

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The UNIVARIATE Procedure



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Obs	A	B	C	resp	res	pred
1	-1	-1	-1	22	-4.0000	26.0000
2	-1	-1	-1	31	5.0000	26.0000
3	-1	-1	-1	25	-1.0000	26.0000
4	1	-1	-1	32	-2.6667	34.6667
5	1	-1	-1	43	8.3333	34.6667
6	1	-1	-1	29	-5.6667	34.6667
7	-1	1	-1	35	-4.6667	39.6667
8	-1	1	-1	34	-5.6667	39.6667
9	-1	1	-1	50	10.3333	39.6667
10	1	1	-1	55	5.6667	49.3333
11	1	1	-1	47	-2.3333	49.3333
12	1	1	-1	46	-3.3333	49.3333
13	-1	-1	1	44	1.6667	42.3333
14	-1	-1	1	45	2.6667	42.3333
15	-1	-1	1	38	-4.3333	42.3333
16	1	-1	1	40	2.3333	37.6667
17	1	-1	1	37	-0.6667	37.6667
18	1	-1	1	36	-1.6667	37.6667
19	-1	1	1	60	5.3333	54.6667
20	-1	1	1	50	-4.6667	54.6667
21	-1	1	1	54	-0.6667	54.6667
22	1	1	1	39	-3.3333	42.3333
23	1	1	1	41	-1.3333	42.3333
24	1	1	1	47	4.6667	42.3333

The SAS System

The REG Procedure
 Model: MODEL1
 Dependent Variable: resp

Number of Observations Read	24
Number of Observations Used	24

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	1519.00000	506.33333	17.57	<.0001
Error	20	576.33333	28.81667		
Corrected Total	23	2095.33333			

Root MSE	5.36812	R-Square	0.7249
Dependent Mean	40.83333	Adj R-Sq	0.6837
Coeff Var	13.14641		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > t
Intercept	1	40.83333	1.09576	37.26	<.0001
B	1	5.66667	1.09576	5.17	<.0001
C	1	3.41667	1.09576	3.12	0.0054
AC	1	-4.41667	1.09576	-4.03	0.0007

The SAS System

The REG Procedure
Model: MODEL1
Dependent Variable: resp

