

HOOKER'S DATA: SPSS COMPARISON OF LINEAR AND QUADRATIC MODELS

Regression with Linear Term

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.996(a)	.992	.991	.8060

a Predictors: (Constant), Pressure

REDUCED MODEL FIT

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2272.474	1	2272.474	3497.902	.000(a)
	Residual	18.840	29	.650		
	Total	2291.315	30			

(a) Predictors: (Constant), Pressure (b) Dependent Variable: Boiling point of Water (C)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	146.673	.776		188.911	.000	145.085	148.261
	Pressure	2.253	.038	.996	59.143	.000	2.175	2.330

a Dependent Variable: Boiling point of Water (C)

Regression with Linear and Quadratic Terms

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.999(a)	.998	.998	.3956

a Predictors: (Constant), Pressure Squared, Pressure

COMPLETE MODEL FIT

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2286.933	2	1143.467	7306.975	.000(a)
	Residual	4.382	28	.156		
	Total	2291.315	30			

(a) Predictors: (Constant), Pressure Squared, Pressure (b) Dependent Variable: Boiling point of Water (C)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	126.702	2.112		59.981	.000	122.375	131.029
	Pressure	4.158	.199	1.838	20.885	.000	3.750	4.565
	Pressure Squared	-.044	.005	-.846	-9.612	.000	-.053	-.034

a Dependent Variable: Boiling point of Water (C)

DIABETES DATA: STEPWISE MODEL COMPARISON

MODEL 4

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
group	.104	2	.052	5.447	.005
loggluf	.675	1	.675	70.702	.000
group * loggluf	.155	2	.077	8.099	.000
Error	1.318	138	.010		
Corrected Total	28.504	143			

a R Squared = .954 (Adjusted R Squared = .952)

MODEL 3

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
group	2.266	2	1.133	107.717	.000
loggluf	2.688	1	2.688	255.565	.000
Error	1.472	140	.011		
Corrected Total	28.504	143			

a R Squared = .948 (Adjusted R Squared = .947)

MODEL 1

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
group	24.344	2	12.172	412.568	.000
Error	4.160	141	.030		
Corrected Total	28.504	143			

a R Squared = .854 (Adjusted R Squared = .852)

MODEL 2

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
loggluf	24.766	1	24.766	940.846	.000
Error	3.738	142	.026		
Corrected Total	28.504	143			

a R Squared = .869 (Adjusted R Squared = .868)