

Sashelp.iris --- Fisher's Iris Data (1936)

The CONTENTS Procedure

Variables in Creation Order				
#	Variable	Type	Len	Label
1	Species	Char	10	Iris Species
2	SepalLength	Num	8	Sepal Length (mm)
3	SepalWidth	Num	8	Sepal Width (mm)
4	PetalLength	Num	8	Petal Length (mm)
5	PetalWidth	Num	8	Petal Width (mm)

The First Five Observations Out of 150

Species	SepalLength	SepalWidth	PetalLength	PetalWidth
Setosa	50	33	14	2
Setosa	46	34	14	3
Setosa	46	36	10	2
Setosa	51	33	17	5
Setosa	55	35	13	2

The Species Variable

The FREQ Procedure

Iris Species				
Species	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Setosa	50	33.33	50	33.33
Versicolor	50	33.33	100	66.67
Virginica	50	33.33	150	100.00

The Species Variable

The FASTCLUS Procedure

Replace=FULL Radius=0 Maxclusters=3 Maxiter=1

Initial Seeds				
Cluster	SepalLength	SepalWidth	PetalLength	PetalWidth
1	77.00000000	38.00000000	67.00000000	22.00000000
2	57.00000000	44.00000000	15.00000000	4.00000000
3	49.00000000	25.00000000	45.00000000	17.00000000

Criterion Based on Final Seeds = 3.7097

Cluster Summary						
Cluster	Frequency	RMS Std Deviation	Maximum Distance from Seed to Observation	Radius Exceeded	Nearest Cluster	Distance Between Cluster Centroids
1	33	3.8831	12.9226		3	18.3409
2	50	2.7803	12.4803		3	34.2516
3	67	4.1797	18.5320		1	18.3409

Statistics for Variables

Variable	Total STD	Within STD	R-Square	RSQ/(1-RSQ)
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Variable	Total STD	Within STD	R-Square	RSQ/(1-RSQ)
SepalLength	8.28066	4.48242	0.710915	2.459187
SepalWidth	4.35866	3.24819	0.452092	0.825123
PetalLength	17.65298	4.29764	0.941527	16.101961
PetalWidth	7.62238	2.38707	0.903243	9.335201
OVER-ALL	10.69224	3.70171	0.881751	7.456709

Pseudo F Statistic = 548.07

Approximate Expected Over-All R-Squared = 0.62728

Cubic Clustering Criterion = 24.559

WARNING: The two values above are invalid for correlated variables.

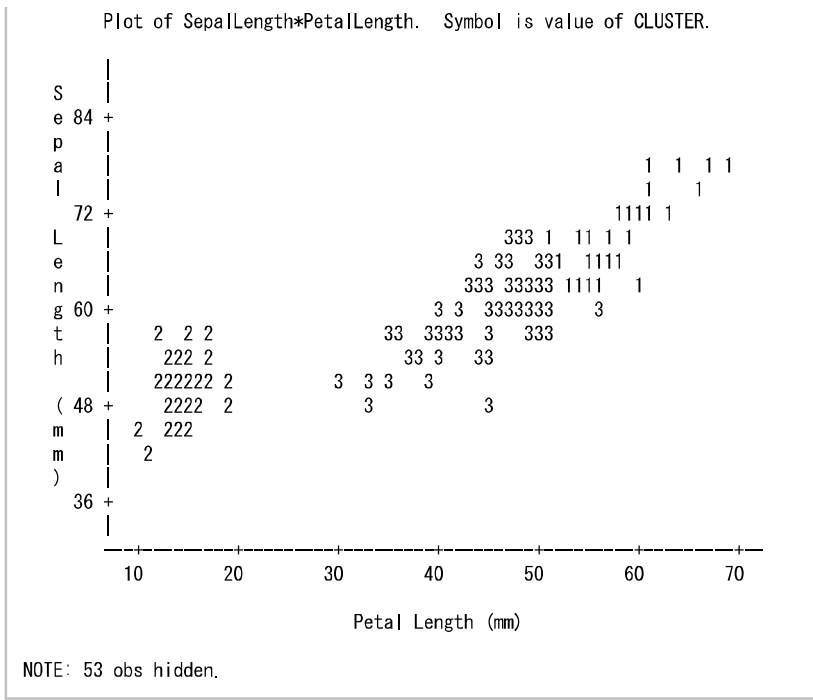
Cluster Means				
Cluster	SepalLength	SepalWidth	PetalLength	PetalWidth
1	69.00000000	30.96969697	58.27272727	21.27272727
2	50.06000000	34.28000000	14.62000000	2.46000000
3	59.47761194	27.61194030	44.52238806	14.53731343

Cluster Standard Deviations				
Cluster	SepalLength	SepalWidth	PetalLength	PetalWidth
1	5.012484414	2.909948974	4.577613511	2.401467354
2	3.524896872	3.790643691	1.736639965	1.053855894
3	4.831582365	2.953966126	5.360795421	3.011736428

The Species Variable



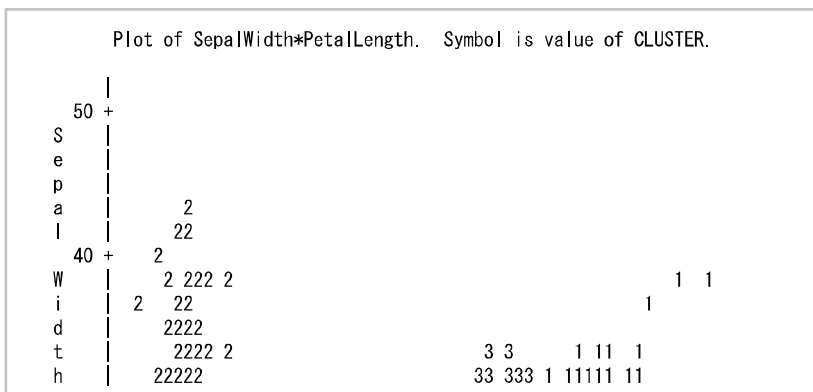
The Species Variable

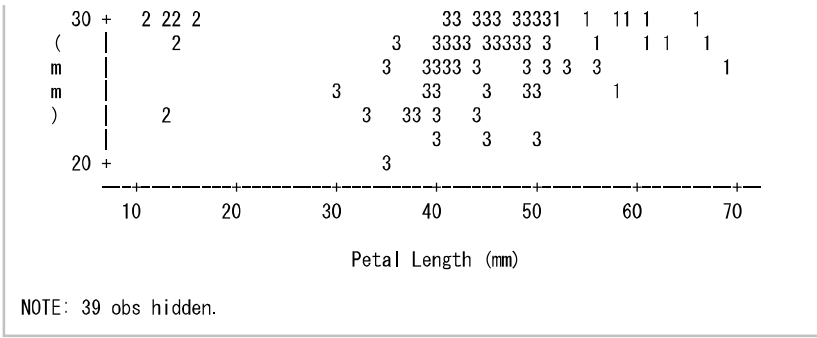


The Species Variable

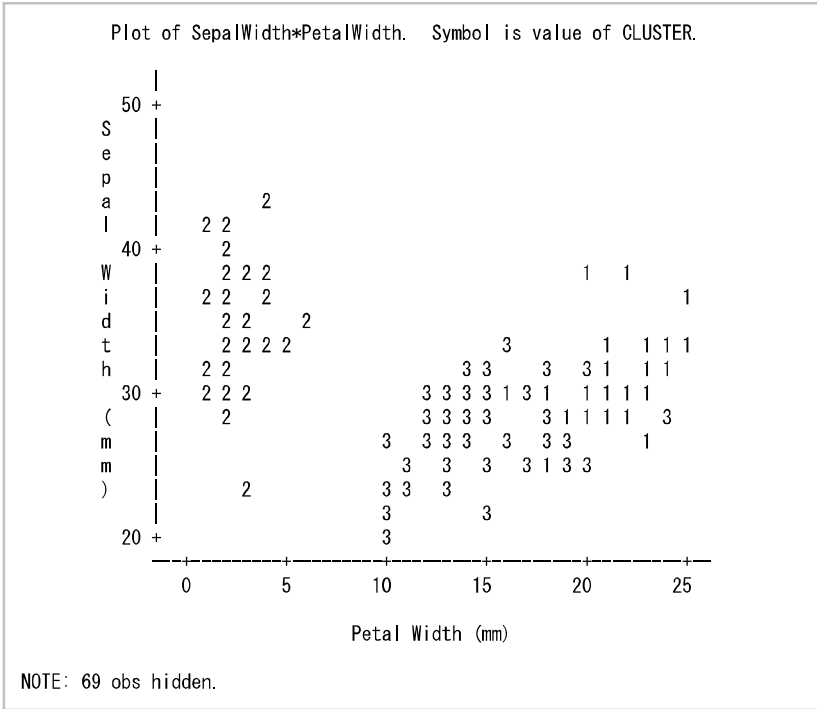


The Species Variable





The Species Variable



The Species Variable

