

DATE: 01/06/2013
TIME: 11:36

P R E L I S 2.54

BY

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The following lines were read from file C:\Users\POLINY\Desktop\Asst. prof.
Sasithorn\Data distribution\raw data of mean.PR2:

!PRELIS SYNTAX: Can be edited
SY='C:\Users\POLINY\Desktop\Asst. prof. Sasithorn\Data distribution\raw data of
mean.PSF'
NS 1 2 3 4 5 6 7 8 9 10 11 12
OU MA=CM XT

Total Sample Size = 272

Univariate Summary Statistics for Continuous Variables

Variable	Mean	St. Dev.	T-Value	Skewness	Kurtosis	Minimum	Freq.	Maximum
qa1	4.004	0.742	89.008	-0.109	-0.332	1.928	2	5.286
qa2	3.995	0.732	89.974	-0.160	-0.401	1.768	1	5.142
qa3	4.231	0.653	106.920	-0.201	-0.469	2.236	1	5.189
kma	3.907	0.688	93.625	-0.082	-0.264	1.831	1	5.167
kmb	3.526	0.898	64.788	-0.073	-0.294	1.227	4	5.172
kmc	3.689	0.811	74.992	-0.091	-0.368	1.677	5	5.104
kmd	3.560	0.888	66.088	-0.088	-0.308	1.350	5	5.160
loa	4.028	0.789	84.245	-0.202	-0.462	1.620	1	5.185
lob	3.867	0.806	79.132	-0.162	-0.412	1.591	2	5.123
loc	3.843	0.879	72.102	-0.181	-0.450	1.360	2	5.171
lod	3.811	0.831	75.671	-0.126	-0.339	1.475	2	5.201
loe	3.786	1.005	62.108	-0.131	-0.341	1.343	6	6.847

Test of Univariate Normality for Continuous Variables

Variable	Skewness	Kurtosis	Skewness and Kurtosis
Z-Score	P-Value	Z-Score	P-Value
		Chi-Square	P-Value

qa1	-0.748	0.454	-1.240	0.215	2.097	0.350
qa2	-1.091	0.275	-1.594	0.111	3.730	0.155
qa3	-1.365	0.172	-1.976	0.048	5.766	0.056
kma	-0.565	0.572	-0.919	0.358	1.164	0.559
kmb	-0.500	0.617	-1.058	0.290	1.370	0.504
kmc	-0.621	0.535	-1.422	0.155	2.407	0.300
kmd	-0.605	0.545	-1.125	0.261	1.631	0.442
loa	-1.373	0.170	-1.937	0.053	5.638	0.060
lob	-1.109	0.267	-1.654	0.098	3.967	0.138
loc	-1.232	0.218	-1.866	0.062	5.001	0.082
lod	-0.859	0.390	-1.277	0.202	2.368	0.306
loe	-0.894	0.372	-1.287	0.198	2.455	0.293

Relative Multivariate Kurtosis = 1.178

Test of Multivariate Normality for Continuous Variables

Skewness			Kurtosis			Skewness and Kurtosis	
Value	Z-Score	P-Value	Value	Z-Score	P-Value	Chi-Square	P-Value
17.947	12.469	0.000	197.843	8.975	0.000	236.029	0.000

Histograms for Continuous Variables

qa1

Frequency	Percentage	Lower Class Limit	
2	0.7	1.928	□
7	2.6	2.263	□□□□
10	3.7	2.599	□□□□□□
20	7.4	2.935	□□□□□□□□
41	15.1	3.271	□□□□□□□□□□□□□□□□
59	21.7	3.607	□□□□□□□□□□□□□□□□□□□□□□
27	9.9	3.943	□□□□□□□□□□□□□□□□
55	20.2	4.279	□□□□□□□□□□□□□□□□□□□□□□
21	7.7	4.614	□□□□□□□□□□□□□□□□
30	11.0	4.950	□□□□□□□□□□□□□□□□

qa2

Frequency	Percentage	Lower Class Limit	
2	0.7	1.768	□
4	1.5	2.105	□□
5	1.8	2.443	□□□
22	8.1	2.780	□□□□□□□□□□
29	10.7	3.118	□□□□□□□□□□□□□□
42	15.4	3.455	□□□□□□□□□□□□□□□□
56	20.6	3.792	□□□□□□□□□□□□□□□□□□□□
43	15.8	4.130	□□□□□□□□□□□□□□□□□□
27	9.9	4.467	□□□□□□□□□□□□□□□□
42	15.4	4.805	□□□□□□□□□□□□□□□□□□□□

qa3

Frequency	Percentage	Lower Class Limit	
2	0.7	2.236	□
4	1.5	2.532	□□
5	1.8	2.827	□□□
16	5.9	3.122	□□□□□□□□
39	14.3	3.417	□□□□□□□□□□□□□□□□
47	17.3	3.713	□□□□□□□□□□□□□□□□□□□□
45	16.5	4.008	□□□□□□□□□□□□□□□□□□□□
35	12.9	4.303	□□□□□□□□□□□□□□□□□□
28	10.3	4.599	□□□□□□□□□□□□□□□□□□
51	18.8	4.894	□□□□□□□□□□□□□□□□□□□□□□

kma

Frequency	Percentage	Lower Class Limit	
2	0.7	1.831	□
5	1.8	2.165	□□□
8	2.9	2.499	□□□□□
16	5.9	2.832	□□□□□□□□
44	16.2	3.166	□□□□□□□□□□□□□□□□□□□□

loc				
Frequency	Percentage	Lower Class Limit	Limit	
2	0.7	1.360		0
5	1.8	1.741		000
12	4.4	2.122		00000000
30	11.0	2.503		000000000000000000
16	5.9	2.884		0000000000
52	19.1	3.266		0000000000000000000000000000000000
56	20.6	3.647		0000000000000000000000000000000000
23	8.5	4.028		00000000000000
29	10.7	4.409		0000000000000000
47	17.3	4.790		00000000000000000000000000000000

lod				
Frequency	Percentage	Lower Class Limit	Limit	
3	1.1	1.475		0
3	1.1	1.848		0
14	5.1	2.220		00000000
34	12.5	2.593		000000000000000000
30	11.0	2.966		00000000000000
36	13.2	3.338		0000000000000000
68	25.0	3.711		00000000000000000000000000000000
27	9.9	4.083		00000000000000
23	8.5	4.456		000000000000
34	12.5	4.828		0000000000000000

loe				
Frequency	Percentage	Lower Class Limit	Limit	
10	3.7	1.343		000000
14	5.1	1.893		0000000000
37	13.6	2.444		000000000000000000
56	20.6	2.994		00000000000000000000000000000000
59	21.7	3.544		00000000000000000000000000000000
38	14.0	4.095		000000000000000000000000
7	2.6	4.645		0000
50	18.4	5.195		00000000000000000000000000000000
0	0.0	5.746		
1	0.4	6.296		

Covariance Matrix

	qa1	qa2	qa3	kma	kmb	kmc
qa1	0.551					
qa2	0.417	0.536				
qa3	0.391	0.368	0.426			
kma	0.329	0.316	0.301	0.474		
kmb	0.449	0.435	0.384	0.424	0.806	
kmc	0.412	0.375	0.353	0.360	0.575	0.658
kmd	0.460	0.422	0.395	0.379	0.644	0.579
loa	0.390	0.309	0.332	0.325	0.408	0.412
lob	0.393	0.390	0.321	0.294	0.502	0.428
loc	0.444	0.402	0.370	0.353	0.512	0.475
lod	0.432	0.421	0.375	0.376	0.514	0.482
loe	0.544	0.495	0.458	0.465	0.557	0.533

Covariance Matrix

	kmd	loa	lob	loc	lod	loe
kmd	0.789					
loa	0.447	0.622				
lob	0.475	0.362	0.650			
loc	0.535	0.459	0.536	0.773		
lod	0.551	0.442	0.492	0.604	0.690	
loe	0.570	0.540	0.524	0.672	0.684	1.011

Means

qa1	qa2	qa3	kma	kmb	kmc
-----	-----	-----	-----	-----	-----
4.004	3.995	4.231	3.907	3.526	3.689

Means

kmd	loa	lob	loc	lod	loe
-----	-----	-----	-----	-----	-----
3.560	4.028	3.867	3.843	3.811	3.786

Standard Deviations

qa1	qa2	qa3	kma	kmb	kmc
-----	-----	-----	-----	-----	-----
0.742	0.732	0.653	0.688	0.898	0.811

Standard Deviations

kmd	loa	lob	loc	lod	loe
-----	-----	-----	-----	-----	-----
0.888	0.789	0.806	0.879	0.831	1.005

The Problem used 18512 Bytes (= 0.0% of available workspace)