

## Problem 2: Descriptive statistics

It is usually desirable to fully describe a dataset before proceeding to full analysis (e.g., hypothesis testing). Using Dataset 1 in file Sampledata.xlsx, and assuming that all data require a  $\log_{10}$  transformation to satisfy the assumption of a normal distribution, generate descriptive statistics for all variables during the Calibration Period (Period = CAL).

Note that all values below are  $\log_{10}$ ; you may wish to back-transform the range, median, mean, and standard deviation values for presentation purposes.

Statistic	logQ_1	logQ_2	logQ_3
Range	-2.523 - 0.185	-1.770 - 0.422	-1.602 - 0.355
Median	-1.229	-0.807	-0.721
Mean	-1.187	-0.743	-0.694
Std. deviation	0.643	0.445	0.387
CV	-54.16	-59.85	-55.74
n	181	181	181
Statistic	logTP_1	logTP_2	LogTP_3
Range	-1.638 - 0.027	-1.585 - 0.229	-1.796 - 0.117
Median	-1.060	-0.928	-1.027
Mean	-1.002	-0.960	-1.016
Std. deviation	0.357	0.405	0.379
CV	-35.64	-42.16	-37.32
n	181	181	181
Statistic	logSS_1	logSS_2	LogSS_3
Range	0.539 - 2.92	0.033 - 2.856	0.204 - 2.658
Median	1.505	1.298	1.230
Mean	1.514	1.250	1.210
Std. deviation	0.471	0.530	0.475
CV	31.12	42.43	39.30
n	181	181	181
Statistic	logTPX_1	logTPX_2	LogTPX_3
Range	-0.959 - 2.731	0.147 - 3.205	-0.048 - 3.166
Median	0.554	0.903	0.939
Mean	0.593	1.079	1.071
Std. deviation	0.704	0.570	0.562
CV	118.81	52.86	52.49
n	181	181	181
Statistic	logSSX_1	logSSX_2	LogSSX_3
Range	1.349 - 5.772	1.756 - 5.998	2.205 - 5.795
Median	3.057	3.169	3.202
Mean	3.109	3.288	3.298
Std. deviation	0.850	0.688	0.642
CV	27.33	20.93	19.47
n	181	181	181