<b>CCHS</b>	Math
Stats	

## Computer Lab 1 – Can Analysis (100 Points)

Name: _	
	8/28/2016

As cans are manufactured, they must be sampled and tested to ensure axial strength. Download the Excel file "CAN DATA DOWNLOAD" located at: <a href="http://www.markeredwards.com/APStats/APStats.html">http://www.markeredwards.com/APStats/APStats.html</a> which shows two sets of data for cans having two different wall thicknesses. A **partial** list of this data is shown to the right.

## Analyze this data:

- 1. To create histograms with the CDF (Cumulative Distribution Function) on a secondary y-axis. View a typical (minimum) solution on the next page.
- 2. With the 109 and 111 data separately.
- 3. Include an additional analysis of the 111 data without any outliers.
- 4. Select the bin (category) widths appropriately to provide sufficiently resolution to determine the shape for each histogram.
- 5. Using your analysis, identify Q1, Q2, Q3.
- 6. Determine if any outliers can be omitted because they exceed the 1.5 IQR rule.
- 7. Write a brief summary of each data set addressing shape, center of the data, variation of the data, skewness, and outliers. Use of a table for this analysis is recommended.

Present your analysis in MS Word format with the following file name: LastName-CanLab.docx (Word will add the suffix automatically. Submit your MS Word and the supporting Excel file as email attachments to: mheinen 1@msn.com no later than midnight .

For an example of an adequately formatted paper, view Player Lab by Heinen.PDF at http://www.markeredwards.com/stats/stats.html.

CANS109	CANS111
270	287
273	216
258	260
204	291
254	210
228	272
282	260
278	294
201	253
264	292
265	280
223	262
274	295
230	230
250	283
275	255
281	295
271	271
263	268
277	225
275	246
278	297
260	302
262	282
273	310
274	305
286	306
236	262
290	222
286	276
278	270
283	280

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11 23 12 24 13 25 14 26	254 228	291 210 272 260	291 210 272 260	Standard Deviation Sample Variance Kurtosis Skewness	22.11 488.95 1.68 -1.48	240 250 260 270	2 5 14 39	12.0% 14.9% 22.9% 45.1%	Standard Dev Sample Variance Kurtosis Skewness	27.77 771.43 23.57 2.17	24 25 26 27	0 7	6.3% 10.3% 14.3% 21.1%	Standard Deviation Sample Variance Kurtosis Skewness	488.87 2.24	240 250 260 270	7 7 12	6.3% 10.3% 14.4% 21.3%
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