Name:	
	9/10/2018

As cans are manufactured, they must be sampled and tested to ensure axial strength. Download the Excel file "CAN DATA DOWNLOAD" located at: http://www.markeredwards.com/APStats/APStats.html 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 the data separately for each set of can data (wall thicknesses of 0.0109 and 0.0111 inches):

- 1. Use Excel's data analysis add-in descriptive statistics tool to obtain all pertinent for each data set.
- 2. Create histograms with the CDF (Cumulative Distribution Function) on a secondary y-axis. View a typical (minimum) solution on the next page.
- 3. Include an additional analysis of the 111 data without any outlier(s).
- 4. Select the bin (category) widths appropriately to provide sufficiently resolution to determine the data shape for each histogram.
- 5. Using a modified box plot analysis, identify min, Q1, Q2, Q3, and max.
- 6. Determine if any outliers can be mathematically omitted because they exceed the 1.5 IQR rule.
- 7. Include a modified box & whiskers plot of each set of data on a single chart.
- 8. 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.
- 9. From a business viewpoint, discuss the importance of this EDA (Exploratory Data Analysis).

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, Monday October 1, 2018.

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

- A	l B		D E	F	G	H I	J	К	L M N	lo	l P	0	R IS	i T	l U l	v w	×	Y
1 2 Max 3 Min	297 200	317 205						.,										
4 Rang	Axial Load Measurements 20109 in				a 0109 in			Q.0111 in vr504		0.0111 in vet 504		504	0.0111 in wto 504		0.0111 in vulo 504			
6	Can Wall	Γhicknesses	With 504	Descriptive Statistics		Force (Ibf)	Freg	Cum %	Descriptive Statistics		Elins	Freig	Cum%	Descriptive Statistics		Force (lbf)	Freq	Cum %
₇ Bins	0.0109 in	0.0111 in	0.0111 in	Mean	267.11	200	1	0.6%	Mean 281.8	31	200	0	0.0%	Mean	280.53	200	0	0.0%
7 200 11 220 11 220 12 240 12 250 14 250 15 270 16 280 20 20 21 22 23 24 25 25 26 25 27 25 26 25 26 25 27 25 26 25 26 25 27 25 26 26 26 26 26 26 26 26 26 26 26 26 26	270 273 258 204 254 282 273 261 262 274 230 250 275 271 263 277 275 281 260 262 273 274 286 287 274 286 286 287 277 286 287 287 287 287 287 287 287 287 287 287	287 216 260 291 271 272 280 294 295 280 295 290 295 230 283 255 295 230 283 295 295 295 295 295 295 295 295 295 295	287 216 260 291 210 272 260 294 253 253 292 280 282 283 255 230 283 255 271 288 225 230 246 227 246 297 302 282 283 271 283 271 283 271 284 295 295 296 297 297 297 297 298 298 298 298 298 298 298 298 298 298	50 45 Frequency 40 35 - Cumulative % 35 - 20 - 21 - 20 - 21 - 21 - 21 - 21 - 21	14	11	0%	Cumulative Percentage	Standard Error 2.1	0 0 0 7 3 3 7 7 0 0 0 0 0	210 220 230 240 250 260 270 280 300 310 320 More	- 8	1.7% 3.4% 5.7% 5.7% 10.3% 10.3% 11.3% 12.11% 25.4% 65.7% 95.6% 99.4% 100.0%	50 - Frequency 50 - Cumulative 40 - 20 - 20 - 3 3 4	174.00 w/o 504	32	- 10 - 80 - 60 - 40	% Cumulative Percentag
48 49 50 51	251 289 242 284	277 317 292 215	277 317 292 215	20° 20° 20° 20° 20° 20°	స్స్స్ Force (lbf)	າ ຈະ ຈະ ຈີ້	,40°	=	70° 70° 70° 70° 70° 70° 70° 70° 70° 70°	290 2	30° 310° 320°	hore.		20° 20° 20° 20° 20° 20° 20° 20° 20° 20°	Force (lbf)	y you sto s	More	