Name _____

DATA ANALYSIS
HOMEWORK (Add-on to Lab #7)

The purpose of this assignment is to become more familiar with reviewing specifications and analyzing data. A spreadsheet labeled "First Article Measurements" has been posted on blackboard. The analysis will be performed in two parts: a) understanding mean/mode/median and b) interpreting process capability.

A new plastic part has been injection molded and will be measured to determine if the molding process creates a product that is within specification and if the process is capable of manufacturing the product in the future.

Part 1.

There are 15 dimensions that have been measured, their specifications are listed below. Using Excel functions determine the mean/median/mode, minimum/maximum values and range for each dimension.

Record the results in the table on the next page.

	target value (inches)	tolerance (inches)
Dimension 1	2.75 inches	+0.01 / - 0.05
Dimension 2	0.763	+ / - 0.006
Dimension 3	1.125	+ / - 0.005
Dimension 4	3.452	+ 0.010 / - 0.005
Dimension 5	1.398	+ / - 0.0005
Dimension 6	0.0055	+ / - 0.0009
Dimension 7	3.33	+ / - 0.10
Dimension 8	21.25	+ 0.10/ - 0.05 0.05
Dimension 9	5.263	+ / - 0.002
Dimension 10	0.955	+ / - 0.010
Dimension 11	0.685 +	+ / - 0.025
Dimension 12	1.15	+ 0.05 / - 0.00
Dimension 13	0.235	+ 0.010 / - 0.005
Dimension 14	1.75	+ / - 0.05
Dimension 15	0.6425	+ / - 0.0003

Create a histogram for dimension(s) 1, 3, 5, 6, 8, 12, 15

Name _____

Dimension	Specification Range	Does product meet specification (Y or N)	Minimum Value Recorded	Maximum Value Recorded	Data range (Max-Min)	Mean	Median	Mode	Standard Deviation
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									