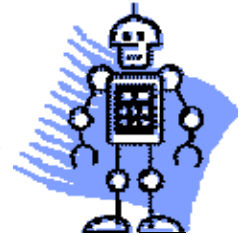


Analyzing Data for *Extreme Bot*

Name _____

You are one of several judges for a new reality TV show called "*Extreme Bot*" where teams of ten young inventors display their robot designs. You are judging quality control. Certain parts used in the building of each robot are to be specifically 5 micrometers in thickness.



Here is what you discover:

Team 1's parts measure 4.6, 5.2, 5.1, 4.2, 4.9, 5.3, 5.0, 4.9, 4.8, 4.8 micrometers

Team 2's parts measure 3.9, 4.8, 5.0, 4.2, 5.1, 5.4, 3.9, 5.2, 4.4, 4.9 micrometers

Team 3's parts measure 4.6, 4.7, 4.6, 4.6, 4.5, 4.6, 4.5, 4.7, 4.8, 4.9 micrometers

1. Determine the mean and the median for each team. Based upon these findings, to which team would you award the highest score in quality control and why?

Team 1	Team 2	Team 3	WINNER (and why):
Mean =	Mean =	Mean =	
Median =	Median =	Median =	

2. Compute the range for each team. What is the range telling you? To which team would you award the highest score if range were used to choose the winner, and why?

Team 1	Team 2	Team 3	WINNER (and why):
Range =	Range =	Range =	
What range is telling you			

3. Compute the standard deviation for each team. Based upon the standard deviation, to which team would you award the highest score in quality control, and why?

Team 1 $\sigma x =$	Team 2 $\sigma x =$	Team 3 $\sigma x =$	WINNER (and why):
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4. Based upon your total findings, to which team did you award the highest score, and why?