

Math 7 - Unit 6

Day 8 - Comparing Populations of Multiple Samples

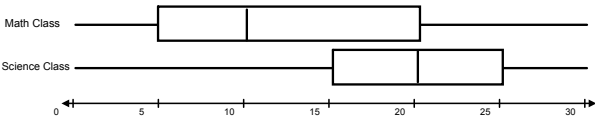
Lesson Objectives:

- I can use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations.

You can draw inferences about two populations by comparing their centers and variations. Use double box plots, double dot plots, double bar graphs, or back-to-back stem & leaf plots to compare populations easily.

Most Appropriate Measures			
	Both sets of data are symmetric.	Neither set of data is symmetric.	Only one set of data is symmetric.
Measure of Center	mean	median	median
Measure of Variation	mean absolute deviation	interquartile range	interquartile range

Kacey surveyed a different group of students in her science and math classes. The double box plot shows the results for both classes. Compare their centers and variations. Write an inference you can draw about the two populations.

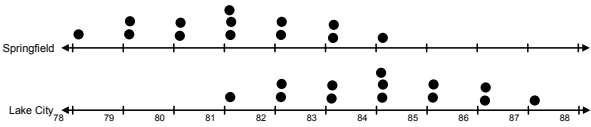


Neither box plot is symmetric. Use the median and the interquartile range to compare the variations.

	Math Class	Science Class
Median	10	20
IQR	15	10

Overall, the science students posted more blogs than the math students. The median for the science class is twice the median for the math class. There is a greater spread of data around the median for the math class than the science class.

The double dot plot below shows the daily high temperatures for two cities for thirteen days. Compare the centers and variations of the two populations. Write an inference you can draw about the two populations.



Both dot plots are symmetric. Use the mean to compare the centers and use the mean absolute deviation to compare the variations.

	Springfield	Lake City
Mean	81	84
MAD	1.38	1.38

While both cities have the same variation, or spread of data about each of their means, Lake City has a greater mean temperature than Springfield.

Homework

Comparing Populations WKS

* Individual Think Time *



What to do if you get stuck...

- Reread the problem. Did you write it down correctly?
- Reread your notes. Is there a problem similar that we did together in class?
- Find a problem similar in your book. Try this one to see if it helps.
- Skip the problem until the end of Individual Think Time. Then ask an "educated" question of a neighbor or Mrs. Call.

Today we're working by...

