

Math 247: Take Home Team Quiz 1 (5 pts)

Team Member 1: KEY

Instructions: Form a team of 2 - 3 people. You will turn in one quiz for the group.

Team Member 2: _____

The quiz is due on Tuesday, 8/27/19, at the beginning of class. You will hand in one quiz for each Team.

Team Member 3 (opt.): _____

Write your answers using complete sentences. Be SURE to explain your thinking!

1. Standard Deviation is a number that tells us about the Variability of a data set.

2. Suppose that Samira records the ages of customers at the Snack Bar on a college campus from 12-2pm tomorrow, while Mary records the ages of customers at the McDonald's near the highway at the same time. Who will have the larger SD of their ages - Samira or Mary? Explain why.

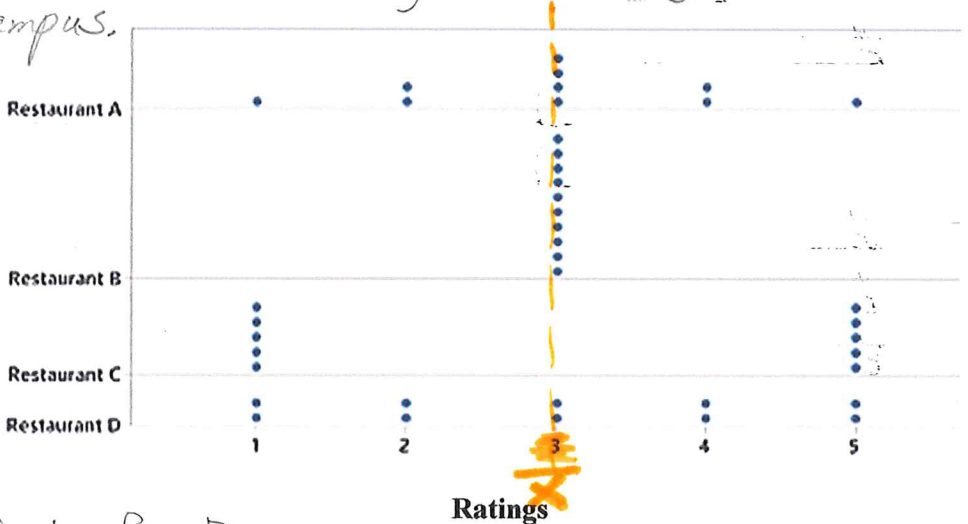
Answer: Samira: College campus - most people will be around the same age (students)

Mary: McDonald's near highway - many different ages!

Mary's data will have the larger SD since McDonald's customers will have a lot more variety in their ages than people on a college campus.

3. Consider the following dotplots of customer ratings (on a scale of 1 - 5) of four restaurants (A - D). Arrange the four restaurants in order from smallest SD to largest SD, without performing any calculations. Explain your thinking!

Note: The mean is 3 ($\bar{x} = 3$) for each data set.



B has the least SD: Ratings for B don't have any variability so that means SD = 0

Answer:

A has next to least SD: Ratings are spread out but still are concentrated on the center.

D has next to the largest SD: Ratings are more spread out than A's ratings (since there are 2 1's and 2 5's).

C has the largest SD: The ratings are all far from the mean!