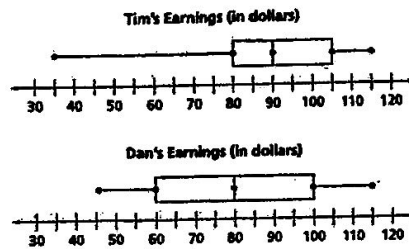


Comparing Data

Example 1: Tim is on the wait staff at the Casual Café, and Dan is on the wait staff at Bountiful Bistro. The box plots below display the amounts they earned in tips on weekends during the past six months.



A. What is the range and interquartile range of the data displayed in each box plot?

B. Use the ranges and interquartile ranges of Tim's and Dan's tips. Compare how their tips vary.

C. Are either of the box plots symmetric?

Adapted from CC Investigation 5: Variability

D. Compare how the amounts of Tim's and Dan's tips are distributed.

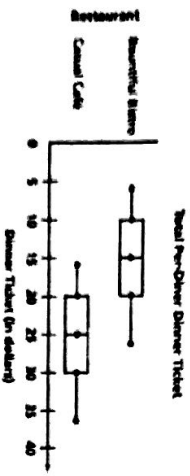
E. Which, if any, of the box plots shows clusters of data?

F. Use the evidence of clusters or no clusters to compare Tim's and Dan's tips.

G. Overall, who do you think earns more tip money? Explain.

Example 2: You can use measures of variability, such as interquartile range and mean absolute deviation, to make sense of data sets, both numerically and visually.

A. The box plot compares the dinner ticket amounts for the two restaurants.



1. Compare the distributions of the data shown in the box plot. What conclusions can you draw about the cost of dinner?

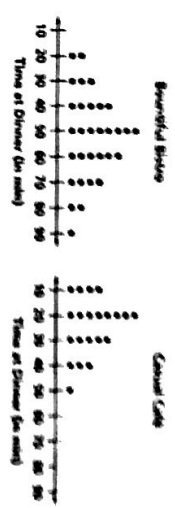
2. a. Find the median value and the interquartile range for each restaurant.

b. What is the difference in the medians?

Adapted from CE Investigation 5: Variability

3. Do the results you found support the conclusions you made about the data? Explain why or why not.

B. The dot plots show the lengths of time, to the nearest 10 minutes, some drivers spent at dinner at each restaurant.



1. What comparison can you draw from looking at the plots about the time drivers spend having dinner at the restaurants?

2. What is the difference in the median value for each set of data?

3. For which set of data would you expect a greater interquartile range? Explain your answer.

Adapted from CE Investigation 5: Variability