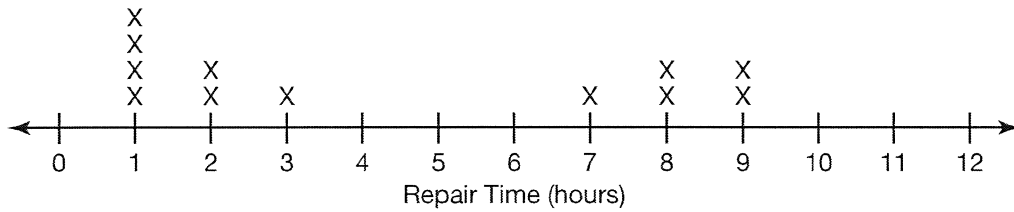


Name _____ Date _____

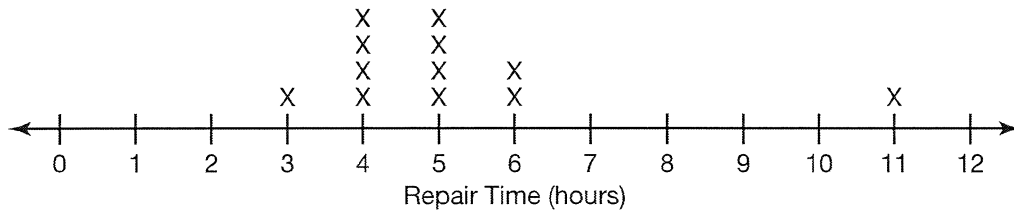
Whose Scores Are Better?
Calculating and Interpreting Standard Deviation

- Dannette and Alphonso work for a computer repair company. They must include the time it takes to complete each repair in their repair log book. The dot plots below show the number of hours each of their last 12 repairs took.

Dannette's Repair Times



Alphonso's Repair Times



- Predict whether Dannette or Alphonso has the greater standard deviation in their repair times. Explain your reasoning.



-
- b. Determine the standard deviation for Dannette and Alphonso. Round your answers to the nearest tenth. Explain what the standard deviations mean in terms of the problem situation.
- c. What other factors might affect repair times?
- d. Which repair person would you ask to fix your computer if you were in a hurry to have it repaired? Explain your reasoning.
- e. The owner of the computer repair company says that he will start giving bonuses to the employees who repair computers quickly. Should the owner look at the mean, median, or standard deviation when determining who gets a bonus? Explain your reasoning.
- f. Alphonso explains to his boss that his average repair time does not accurately reflect how fast he is, because he had a very difficult repair that took over 10 hours.
Is the repair that took over 10 hours an outlier? Explain your reasoning.

Name _____ Date _____

g. Calculate and compare the mean and standard deviation for Alphonso's repair times with and without the repair that took over 10 hours.

h. Is Alphonso correct in his explanation to his boss? Why or why not?