Name _____ Date _____

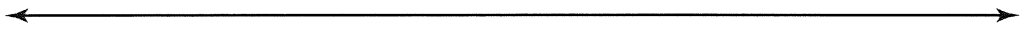
You Are Too Far Away!

Calculating IQR and Identifying Outliers

1. The table shows the average monthly precipitation in millimeters during the summer for the Southern states.

State	Average Monthly Summer Precipitation (mm)	State	Average Monthly Summer Precipitation (mm)
Alabama	117	Mississippi	109
Arkansas	91	North Carolina	122
Delaware	103	Oklahoma	82
Florida	181	South Carolina	128
Georgia	120	Tennessee	107
Kentucky	106	Texas	69
Louisiana	125	Virginia	101
Maryland	101	West Virginia	111

a. Construct a box-and-whisker plot of the data.



b. Which measure of center best represents this data? Explain how you determined your answer.

c. Determine whether or not there are any outliers. Show your work.

d. Reconstruct the box-and-whisker plot to show any outliers.

2. The five number summaries for the average monthly precipitation in millimeters during the summer for the Western and Midwestern states are provided.

West	**Midwest**
Min = 7	Min = 68
Q1 = 22	Q1 = 81.5
Med = 33	Med = 99.5
Q3 = 49	Q3 = 102.5
Max = 107	Max = 111

a. Construct box-and-whisker plots of each area's monthly precipitation using the same number line for each.

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b. Describe the distribution of both box-and-whisker plots and explain what they mean in terms of the problem situation.

c. Determine if there are outliers in either data set. Show your work and explain how you determined your answer.

d. Chen is considering a long camping trip this summer and hopes to avoid the rain. Would you recommend that he camp in the West or the Midwest? Explain your reasoning.