EFFECTS OF CHANGING DATA IN A BLOXPLOT

Use the Boxplot Applet to help you answer the questions below.

Question 1. Change the data for n_1 from 26 to 20. There are no changes in the boxplot diagram. Explain why this is the case and which summary statistic would change.

Question 2. Reset the values for n_1 and n_2. Now change the data for n_1 from 26 to 37 and n_2 from 28 to 50. Explain which to two statistics change and whether each of these values increases or decreases.

Question 3. Again, reset the values for n_1 and n_2. Now change the data for n_3 from 60 to 30 and n_4 from 80 to 35. Explain which to two statistics change and whether each of these values increases or decreases.

Question 4. From the changes made in question 3, what observations can be made about the interquartile range and the effect on the number of possible outliers.