

Box and Whisker Plots

Box and Whisker Plots are a way to display a data set that has been divided into four parts using the median, upper quartile and lower quartile as the dividers. It allows you to see the range of the data and how it is generally clustered. To create a Box and Whisker Plot from a data set you:

1. Order the data set from smallest to largest.
2. Find the median
3. Find the median of the lower half of the data set (don't include the median of the entire data set as you are calculating this) and call it the lower quartile.
4. Find the median of the upper half of the data set (don't include the median of the entire data set as you calculate this) and call it the upper quartile.
5. Draw a number line starting at a logical place below the lowest number in the data set and ending at a logical place above the highest number in the data set.
6. Draw short parallel lines above or below the number line at the values for the lower quartile, median, and upper quartile. Write those values below the lines.
7. Connect those lines to create a box.
8. Draw dots at the lowest and highest numbers in the data set, label those numbers.
9. Draw whiskers connecting the dots to the box.

Example:

Data Set: 1, 1, 3, 4, 5, 6, 9, 12, 15

Median = 5

Lower Quartile = 2 (take out the 5; 1 1 3 4)

Upper Quartile = 10.5 (take out the 5; 6 9 12 15)

Lower Quartile is 2

Upper Quartile is 10.5

