Box and Whisker Plot – Civil War Battles

A box and whisker plot is a visual way to show norms and extremes of a given data set. In this exercise, you'll be making a box and whisker plot to illustrate Civil War battles in the states. The table shows the number of recorded battles that occurred in each state.

Alabama - 7	Kentucky - 11	North Dakota - 5
Arkansas - 17	Louisiana - 23	Ohio - 2
Colorado - 1	Maryland - 7	Oklahoma - 7
Florida - 6	Minnesota - 2	Pennsylvania - 2
Georgia - 27	Mississippi - 16	South Carolina - 11
Idaho - 1	Missouri - 29	Tennessee - 38
Indiana - 1	New Mexico - 2	Texas - 5
Kansas - 4	North Carolina - 20	Virginia – 122
		West Virginia - 15

When making a box and whisker plot, the first step is to ORDER the values. Here, only the values are important, not the states. In the space provided below, order the values from LEAST to GREATEST in a straight line if possible.

Once you have ordered your values, you need to find the median of the entire set. We'll refer to this entire set as Q2. You'll see why later. To find the median, identify and CIRCLE the MIDDLE number of the data set Q2, or, the value in the exact middle of the number set.

What is the median of Q2? _____

Once you've identified the median of Q2, you'll notice two data sets, Q1 is the data set to the left of the median, and Q3 is the data set to the right of the median. You'll need to find the medians of each of these new data sets. Below is an example.

Median of Q1 (8+9) / 2

SAMPLE DATA SET

Median of Q3 (16 + 20) / 2
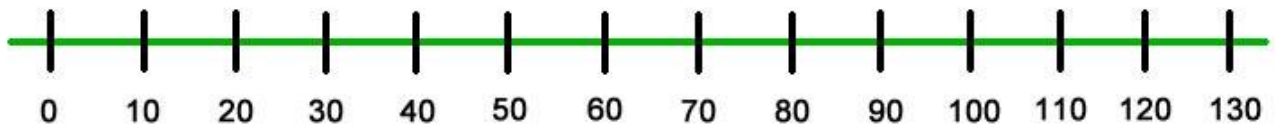
6, 8, 9, 9, 12, 14, 16, 20, 22
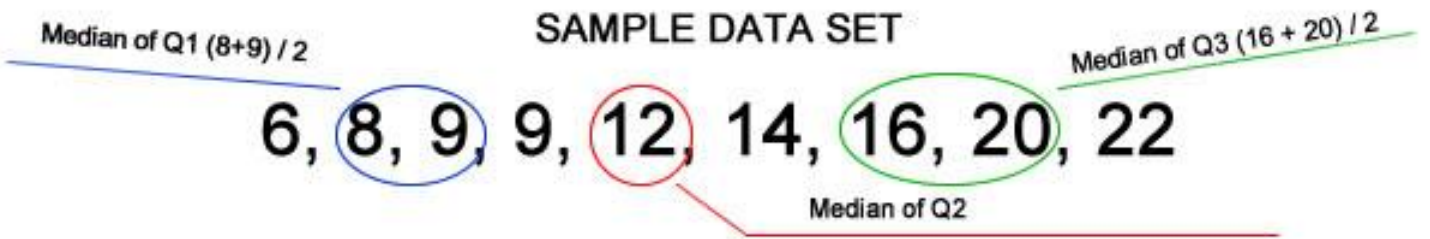
Median of Q2

What is the median of your Q1 data? _____

What is the median of your Q2 data? _____

What is the median of your Q3 data? _____

Now it's time to plot. See the number line below:

| | | | | | | | | | | | | | |
0   10   20   30   40   50   60   70   80   90   100 110 120 130

Draw vertical lines:

1.) Above the Q1, Q2, and Q3 medians on the number lines. Then, box them.

2.) Above the lowest score and the highest score in the Q2 number set. These are the "whiskers." Connect them to the box with horizontal lines.

3.) That's it!

Box and Whisker Plot – Civil War Battles

A box and whisker graph plot is a visual way to show norms and extremes of a given data set. In this exercise, you'll be making a box and whisker plot to illustrate the numbers of major battles that occurred in each state during the American Civil War. The data set is below:

|		
Alabama - 7	Kentucky - 11	North Dakota - 5
Arkansas - 17	Louisiana - 23	Ohio - 2
Colorado - 1	Maryland - 7	Oklahoma - 7
Florida - 6	Minnesota - 2	Pennsylvania - 2
George - 27	Mississippi - 16	South Carolina - 11
Idaho - 1	Missouri - 29	Tennessee - 38
Indiana - 1	New Mexico - 2	Texas - 5
Kansas - 4	North Carolina - 20	Virginia – 122
		West Virginia - 15

When making a box and whisker plot, the first step is to ORDER the values. Here, only the values are important, not the states. In the space provided below, order the values from LEAST to GREATEST in a straight line if possible.

1, 1, 1, 2, 2, 2, 2, 4, 5, 5, 6, 7, 7, 7, 11, 11, 15, 16, 17, 20, 23, 27, 29, 38, 122

Once you have ordered your values, you need to find the median of the entire set. We'll refer to this entire set as Q2. You'll see why later. To find the median, identify and CIRCLE the MIDDLE number of the data set Q2, or, the value in the exact middle of the number set.

What is the median of Q2? _____

Once you've identified the median of Q2, you'll notice two data sets, Q1 is the data set to the left of the median, and Q3 is the data set to the right of the median. You'll need to find the medians of each of these new data sets. Below is an example.

Median of Q1 (8+9) / 2

SAMPLE DATA SET

Median of Q3 (16 + 20) / 2

6, 8, 9, 9, 12, 14, 16, 20, 22
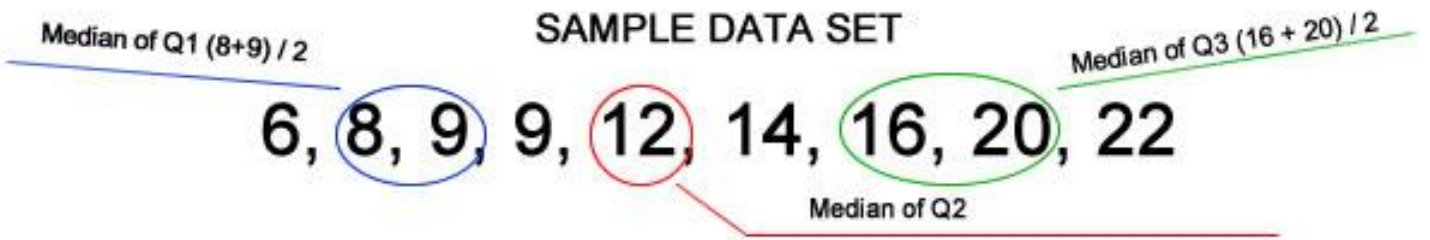
Median of Q2

What is the median of your Q1 data? _____2_____

What is the median of your Q2 data? _____7_____

What is the median of your Q3 data? _____18.5_____

Now it's time to plot. See the number line below:

0   10   20   30   40   50   60   70   80   90   100   110   120   130