Box - and - Whisker Plot
a data display that shows how data is distributed by using median, quartiles, and least and greatest values
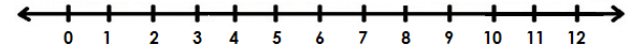
Sample data set: 3, 1, 2, 6, 7, 8, 2, 7, 12, 5

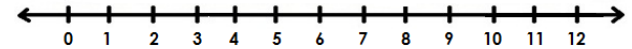**Step 1:** Order the numbers from least to greatest: _____

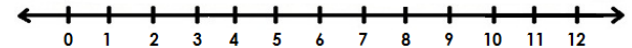**Step 2:** Identify the smallest value and the greatest value.
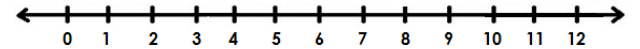Place a point above each value on the number line.

Step 3: Find the median and place a point above that value on the number line.

Step 4: Find the first and third quartiles and place points above those values on the number line.

Step 5: a) Draw a box, with the end lines going through the points of the first and third quartiles. **b)** Draw a vertical line through the median.
c) Draw lines from the box to the least and greatest values.

three values that divide the data into fourths (median, first quartile, and third quartile)	median of the lower half of the data	median of the upper half of the data	spread of the values	difference between the first and third quartiles (shows spread of the middle 50% of the data)

fold   fold

cut   cut   cut   cut

Box - and - Whisker Plot

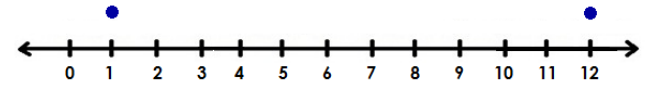a data display that shows how data is distributed by using median, quartiles, and least and greatest values

Sample data set: 3, 1, 2, 6, 7, 8, 2, 7, 12, 5

Step 1: Order the numbers from least to greatest: 1, 2, 2, 3, 5, 6, 7, 7, 8, 12

Step 2: Identify the smallest value and the greatest value.
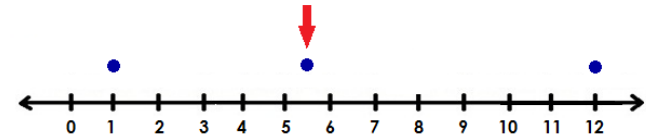Place a point above each value on the number line.

Step 3: Find the median and place a point above that value on the number line.
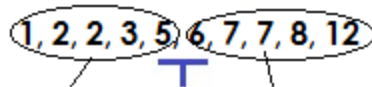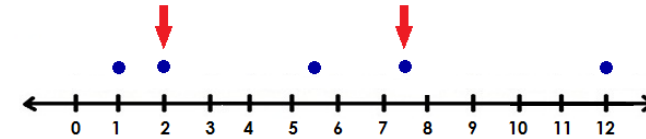
1, 2, 2, 3, 5, 6, 7, 7, 8, 12

median is 5.5

Step 4: Find the first and third quartiles and place points above those
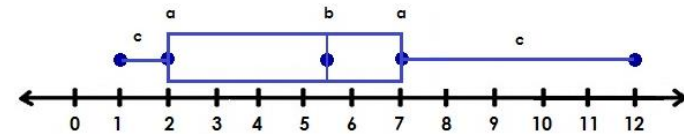values on the number line

1, 2, 2, 3, 5, 6, 7, 7, 8, 12

first quartile is 2   third quartile is 7

Step 5: a) Draw a box, with the end lines going through the points of the
first and third quartiles. **b)** Draw a vertical line through the median.
c) Draw lines from the box to the least and greatest values.

three values that divide the data into fourths (median, first quartile, and third quartile)	median of the lower half of the data	median of the upper half of the data	spread of the values	difference between the first and third quartiles (shows spread of the middle 50% of the data)

fold   cut   cut   cut   fold   cut   cut