

Box and Whisker Plot

A **box and whisker plot**, or box plot, shows the five-number summary of a data set. The five-number summary includes the minimum, first quartile (Q_1), median, third quartile (Q_3), and maximum.

To make a box plot, follow these steps:

1. Order the data set from least to greatest.
2. Find the **median**.
3. Find the **first quartile** and the **third quartile**.
4. Find the **minimum** and **maximum**.
5. Use those five numbers to make your box plot!

Try it! Make a box plot for this data set: 2, 3, 7, 8, 9, 13, 13, 15, 16, 19.

First, order the data set. Here the data set is already in order.

Then, find the median, or the middle number of the data set.

For this example, the median is 11.

Next, find the first and third quartiles. Here the first quartile is 7, and the third quartile is 15.

Then, find the minimum and maximum. The minimum is 2, and the maximum is 19.

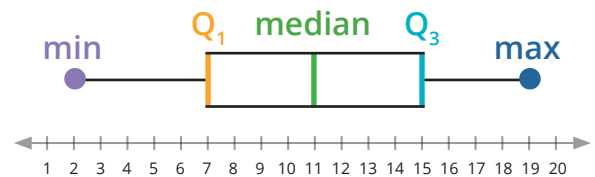
Finally, use the number line and the five-number summary to make your box plot.

2, 3, 7, 8, 9, | 13, 13, 15, 16, 19

$$\frac{9 + 13}{2} = 11$$

2, 3, 7, 8, 9, | 13, 13, 15, 16, 19

2, 3, 7, 8, 9, 13, 13, 15, 16, 19



Fill in the five-number summary and make a box plot for each data set.

10, 19, 12, 3, 7, 18, 5, 16

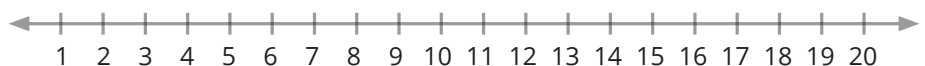
Minimum 3

Q_1 6

Median 11

Q_3 17

Maximum 19

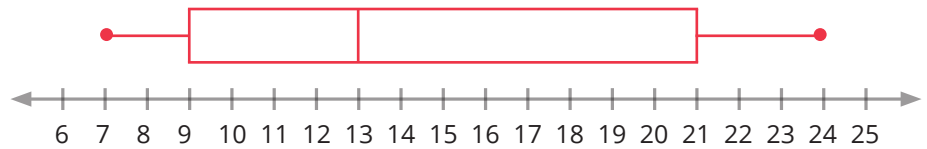


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Fill in the five-number summary and make a box plot for each data set.

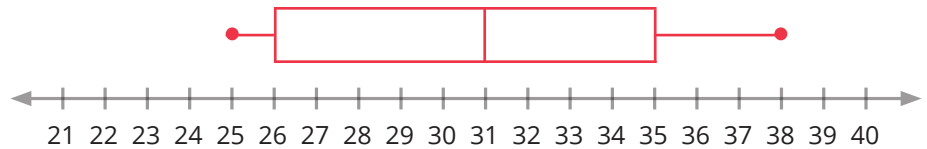
16, 10, 7, 13, 23, 10, 8, 24, 19

Minimum 7
 Q_1 9
 Median 13
 Q_3 21
 Maximum 24



33, 27, 25, 38, 30, 32, 25, 37

Minimum 25
 Q_1 26
 Median 31
 Q_3 35
 Maximum 38



28, 26, 15, 30, 17, 18, 14, 22, 28

Minimum 14
 Q_1 16
 Median 22
 Q_3 28
 Maximum 30

