Interquartile Range (IQR)

Follow the following steps to find the Interquartile Range (IQR).
Consider the data: 1,1,8,10,11,3,4,6,6,7,11,15, 17,17,12,15,17

1. Put the data in order from smallest to largest.

2. Find the minimum and maximum.

3. Find the median.

4. Find the lower quartile and upper quartile.

5. Calculate the IQR by finding the difference between Q3 and Q1

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Consider the data: 1,1,8,10,11,3,4,6,6,7,11,15, 17,17,12,15,17

1. Put the data in order from smallest to largest.

   1,1,3, 4,6,6,7,8,10,11,11,12,15,15,17,17,17

2. Find the minimum and maximum.

   The minimum data point is 1, and the maximum is 17.

   $(1,)1, 3, 4, 6, 6, 7, 8, 10, 11, 11, 12, 15, 15, 17, 17(17)$

3. Find the median.

   There are 17 data points, so the ninth one from the smallest or the largest is the median.

   1, 1, 3, 4, 6, 6, 7, 8,(10) 11, 11, 12, 15, 15, 17, 17, 17

   median

4. Find the lower quartile and upper quartile.

   The lower quartile (Q1) is halfway between the 4th and 5th data points (the average of 4 and 6), or 5, and the upper quartile (Q3) is halfway between the 13th and the 14th data points (the average of 15 and 15), or 15.

   1, 1, 3,(4, 6,)6, 7, 8, 10, 11, 11, 12,(15, 15,)17, 17, 17

   Q1 is 5   *Q3 is 15*

5. Calculate the IQR by finding the difference between Q3 and Q1

   $IQR = 15 - 5 = 10.$