

Notes - Box Plots day 1

Box Plots

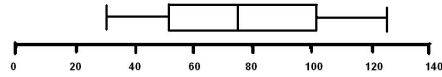
Box Plot - a.k.a **Box and Whisker Plot**

A graph that presents information from a **five** number summary

Box plots help to:

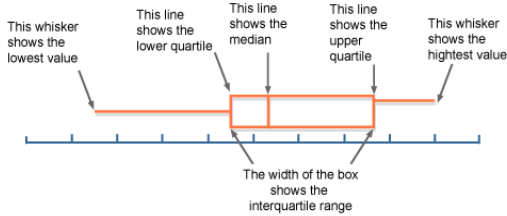
- Determine any **outliers** in the data set.
- Compare two or more data sets.

Annual snow depth at Mathsville Ski Resort



Box Plot's 5 Number Summary

- Lower Extreme
- Lower Quartile
- Median
- Upper Quartile
- Upper Extreme



What is a Quartile?

Values that divide your data into quarters

- Q1- Lower Quartile
- Q2- Median
- Q3- Upper Quartile

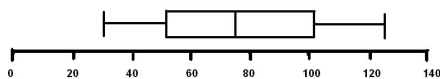
How do we find each quartile?

- Q1- Median of lower half of data
- Q3- Median of upper half of data

Quartiles separate the original set of data into 4 _____

Each Quartile represents _____ percent of the data set, which is _____ as a fraction

Annual snow depth at Mathsville Ski Resort

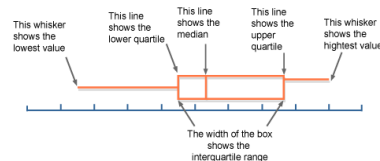


What is the Inter-Quartile Range (IQR)?

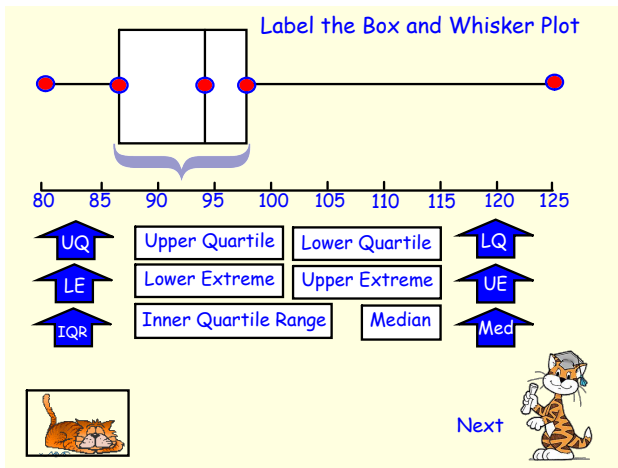
The IQR is the difference between the _____ and _____.

It is useful because it represents _____ percent of the data, which is _____ as a fraction.

The IQR spans the _____.



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Constructing a Box & Whisker Plot

Step 1: Identify the Five Number Summary.

65	65	70	75	80	80	80	80	85	90	95	95	95	98
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Next

Constructing a Box & Whisker Plot

Step 2: Above the number line, place dots to identify the Five Number Summary.

Step 3: Draw a Rectangle around the IQR, from Q_1 to Q_3 .

Step 4: Draw a vertical line through the Median

65 70 75 80 85 90 95 100

Next

Try on your own:

Create a box and whisker plot to represent the data below:

3 14 7 8 18 5 21 12 14 15

Box Plots on a CALC

Clear your calc 2nd 0 7 1 2

List - Enter your data into the list. Hit enter after each number

2nd Mode

2nd List

CALC

1-Var Stats. Hit ENTER twice

Scroll down. There's your 5 # summary!