Precalculus | Name:
1.4 Notes | Date: | Block:

1.4: Boxplots, 5 Number Summary, and Outliers

Consider the data below.
70, 70, 73, 73, 74, 75, 77, 77, 79, 79, 80, 81, 82, 82, 82, 82, 82, 83, 83, 83, 83, 84, 84, 85, 88, 90, 91, 92, 97, 100

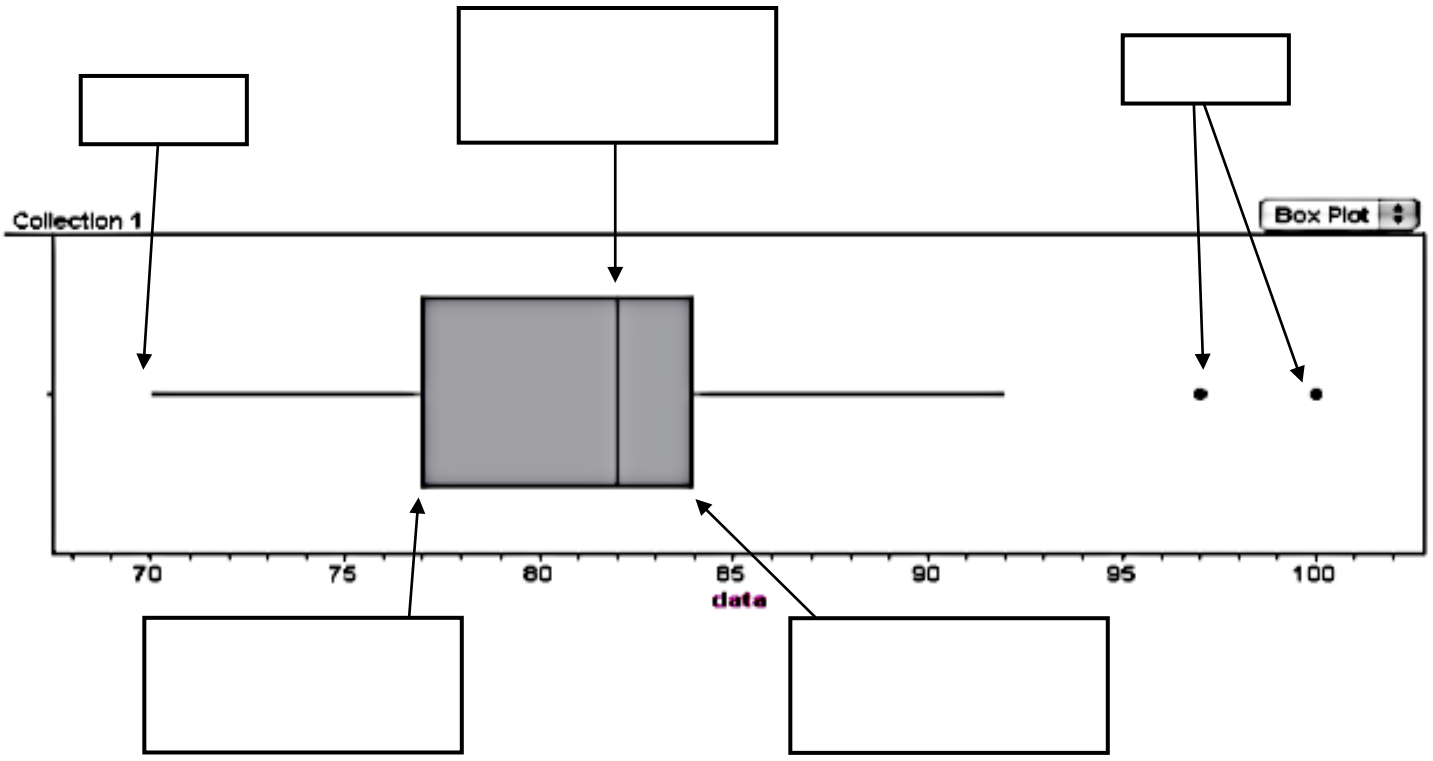
Min: _____ Max: _____ Mean: _____ Median: _____

Five Number Summary:

1.
2.
3.
4.
5.

First Quartile:	**Third Quartile:**

BOXPLOT (BOX AND WHISKER PLOT)



The **IQR** (_____) is defined to be IQR = Q3 – Q1.

Find the IQR for the data above.

TO FIND OUTLIERS:

Upper Outliers	Lower Outliers
Example:	Example:

"Analyze the Data"

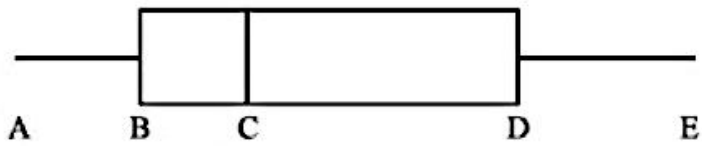
1. Shape
2. Five Number Summary
3. Mean and Standard Deviation
4. Outliers (using IQR)

Practice.

1. **A set of data is**

18, 18, 19, 19, 20, 22, 22, 23, 27, 28, 28, 31, 34, 34, 36.

The box and whisker plot for this data is shown below.



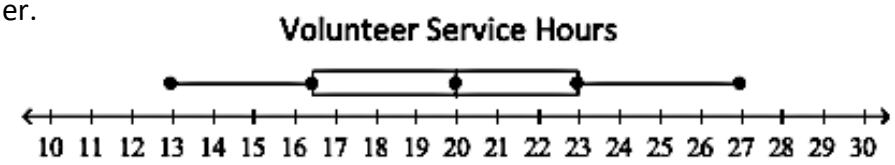
(a) Write down the values of A, B, C, D and E.

A = ... B = ... C= ..... D = ... E = ...

(b) Find the interquartile range.

(c). Find the upper and lower cutoff for outliers.

2. The box and whisker plot shows the volunteer service hours performed by students at Porter-Gaud Upper School last summer.



What is the five number summer of this data set?

What percentage of data is between the lower quartile and the upper quartile?