

Test # **All of them!**

Part I – List all test scores from least to greatest.

71, 74, 74, 79, 83, 88, 88, 88, 91, 93, 93, 95, 95, 95, 95, 98, 100

You will need to use the scores from your own class. If you were absent, check your class calendar for the link to the scores. My sample class has 17 scores.

Part II – Measures of Central Tendency

Mean = 88.2 To find the mean, add all scores and then divide by the number of scores you have. Round to the nearest tenth.

$$71+74+74+79+83+88+88+88+91+93+93+95+95+95+95+98+100 = 1500 \div 17 \approx 88.2$$

Median = 91 To find the median, put all scores in order and choose the one in the middle. If there are an even number of scores, there will be 2 middle numbers. The median is the mean of those 2.

71, 74, 74, 79, 83, 88, 88, 88, 91, 93, 93, 95, 95, 95, 95, 98, 100

Mode(s) = 95 The mode is the score that appears the most. If no score is repeated, there is no mode. If more than one score occurs with the same greatest frequency, each score is a mode.

71, 74, 74, 79, 83, 88, 88, 88, 91, 93, 93, 95, 95, 95, 95, 98, 100

Range = 29 The range is the highest score minus the lowest score.

$$100 - 71 = 29$$

Part III – Stem and Leaf Plot

Make sure that you include enough stems to cover the entire range of scores. Every score must be represented on the stem and leaf plot.

10	0
9	1 3 3 5 5 5 5 8
8	3 8 8 8
7	1 4 4 9

↑ stems ↑ leaves

It is also acceptable to start with the lowest scores at the top.

Key: 9 | 3 = 93

The key tells us how to read the stem and leaf plot. If there were no key, we might think that 9 | 3 means 9.3 or 9300. Choose any score from your stem and leaf to create the key.

Upper Quartile – Lower Quartile

The lower quartile is the median of all of the scores **BELOW** the median. Do not count the median itself when finding the lower quartile.

Part IV – Box and Whisker Plot

Lowest Value = 71

71, 74, 74, 79, 83, 88, 88, 88, 91, 93, 93, 95, 95, 95, 95, 98, 100

Highest Value = 100

The lower quartile is the median of the boxed numbers only. Since 79 and 83 are both in the middle, the lower quartile is the mean of these 2.

Lower (1st) Quartile = 81

$79 + 83 = 162 \div 2 = 81$ ← lower quartile

Median = 91

The upper quartile is the median of all of the scores **ABOVE** the median. Again, do not count the median itself when finding the upper quartile.

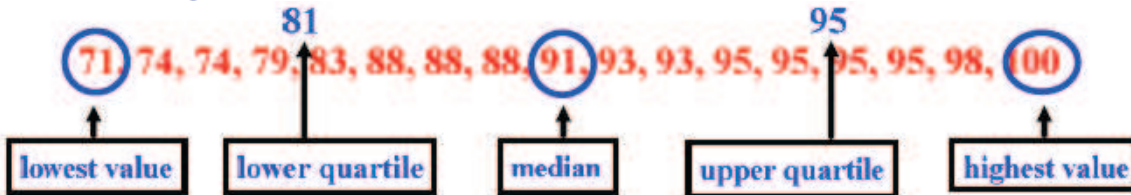
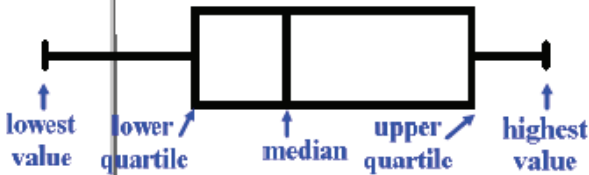
Upper (3rd) Quartile = 95

Range = 29

Interquartile Range = 14 71, 74, 74, 79, 83, 88, 88, 88, 91, 93, 93, 95, 95, 95, 95, 98, 100

The upper quartile is the median of the boxed numbers only. Since there are two 95's in the middle, the upper quartile is the mean of these 2.

$95 + 95 = 190 \div 2 = 95$ ← upper quartile



Part V – My Test Performance

Make sure that you use an appropriate scale for the number line below the box and whisker. The scale on my number line is 2, because each line counts as 2. You must be able to graph from the lowest to the highest value.

My score on this test was _____ %.

I am very happy somewhat happy very unhappy with my test score.

I put maximum average minimum effort into preparing for this test.

Don't forget to complete this part!