

Name _____ Date _____

After you receive the cup of Lucky Charms, sort the marshmallows and find the total of each shape. The totals will be the data you use to answer the questions about mean, median, mode, range, box and whiskers, and IQR with MAD

Shape	Total

- Order your data from least to greatest.

- What is the range of data?

- What is the Mean?

- What is the Median?

- What is the mode?









- Using the Mean above find the Mean absolute deviation? (Mean, Subtract, Mean)

Now Make a Box and Whiskers Plot with your data above.

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

- Label the Upper Extreme, Lower Extreme, Median, Upper Quartile, and Lower Quartile.
- What Percentage of the data is above the Q1? _____
- What Percentage of the data is below the Q2? _____
- What is the Interquartile Range of the data in the Box and Whiskers Plot? _____

Now combine your data with the class data on the board. Your teacher will make a chart on the board and each group or person will add their data to the chart. Total the data as a class and use the data to answer the questions below.

Shape	Class Total
	62
	54
	81
	134
	173
	44
	56
	33

7. Order your data from least to greatest.

33 44 54 56 | 62 81 134 173

8. What is the range of data?

140

9. What is the Mean?

79.6

10. What is the Median?

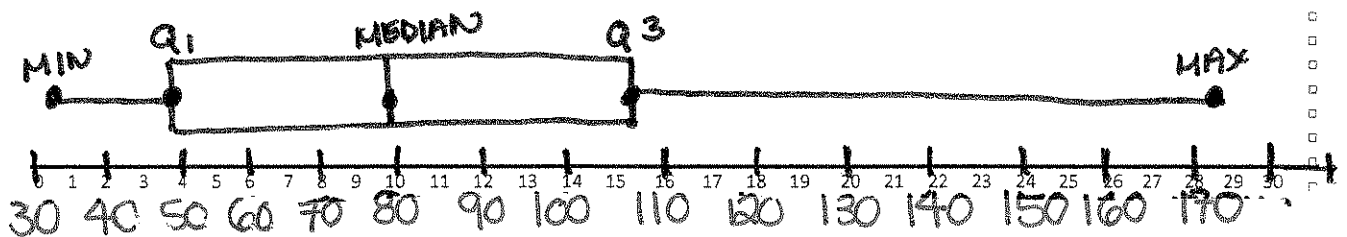
59

11. What is the mode?

NO MODE

12. Using the Mean above find the Mean absolute deviation? (Mean, Subtract, Mean)

Now make a *Box and Whiskers Plot* with your Class data above.



13. Label the Upper Extreme, Lower Extreme, Median, Upper Quartile, and Lower Quartile.

14. What Percentage of the data is above the Q1?

75%

15. What Percentage of the data is below the Q2?

50%

16. What is the Interquartile Range of the data in the Class Box and Whiskers Plot?

107.5 - 49 = 58.5

17. ARE THERE ANY OUTLIERS? 58.5 * 1.5 = 87.75

49 - 87.75 = -38.75

107.5 + 87.75 = 195.25

NO OUTLIERS