I understand that a set of numerical data has a measure of center that summarizes all of its values with a single number.

Notes:

Mean – of a data set is the sum of the data divided by the number of data values.

Data Set: 8, 4, 5, 5, 3

Order the data and find the sum:

 $3+4+5+5+9 = 26 \div 5 = 5.2$

Mean of 8, 4, 5, 5, 3 is **5.2**

An **outlier** is a data value that is much greater or much less that the other values. When included in a data set, it can affect the mean.

Data Set: 6.7, 8.5, 7.0, 15.8, 7.0 Order: 6.7, 7.0, 7.0, 8.5, **15.8** (outlier)

Mean with Outlier: 6.7 + 7.0 + 7.0 + 8.5 + 15.8 = 45.0 ÷ 5 = 9.0

Mean without Outlier: 6.7 + 7.0 + 7.0 + 8.5 = 29.2 ÷ 4 = 7.3

The mean without the outlier best represents the data set.

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For each data set, identify the outlier. The describe how it effects the mean.

(For this entire unit, round your answers to the nearest tenth if necessary!)

1) Weights (in pounds) of Labrador Retrievers: 48, 50, 55, 60, 62, 30, 50

2) Prices for flights for a weekend getaway: \$456, \$512, \$516, \$900, \$436

Choose one set of data from your class's spreadsheet. List the letter of your data: ______
Order the set of data:

Calculate the sum: _____ Calculate the mean: _____ Is there an outlier? _____ If so, how would the outlier affect the mean?