FST Name:

1.3 Notes Date: Block:

**1.3: Sigma Notation and Measures of Center**

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| **Sigma Notation** $$\sum\_{i=1}^{n}x\_{i}=$$ | **Example**: $$\sum\_{k=1}^{4}2k+3=$$ |

Practice.

1. Consider a set of x-values: x1 = 14, x2 = 16, x3 = 15, x4 = 18, x5 = 17 2. Evaluate.

$$\sum\_{i=1}^{5}x\_{i}=$$

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| **Mean** Also written as \_\_\_\_\_\_ | Definition: ***Mean*** *is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ measure of center.* How to find it?  |

It is convenient to use sigma notation to define the ***mean*** of a set of data.



1. Express the mean of the fastest 100m runs in sigma notation

 and solve.



2. The following data points represent the NBA players average

number of points scored per 48 minutes of play in the 2016-2017

regular season. <http://www.espn.com/nba/statistics/player/_/stat>

/scoring-per-game/sort/avgPoints/count/241

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| The mean is affected by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.  |
| **Outliers** | Definition:  |

*Examples*: Calculate the mean of the two data sets.

1.) 1, 2, 5, 6, 7, 9, 100 2.) 1, 2, 5, 6, 7, 9

Which mean is a better measure of center?

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| **Median** | Definition: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ most common measure of center. Data must be in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ order. |

*Examples:*

Calculate the median of the data set of NBA players.

If you have an even amount of data, you will have to calculate the

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the middle two numbers.

Mean of NBA players: Median of NBA players:

*Practice.*

1. The weekly salaries of six employees at McDonalds are $140, $220, $90, $180, $140, $200.

For these six salaries, find a) the mean, b) the median, and c) the mode.



2.