

THURSDAY
April 20, 2017

AGENDA

Warm-Up

Cornell Notes:

**Measures of
Central Tendency
and Variability**

**Practice, Practice,
Practice**

Warm Up # 24

**Complete all 5 in your
notebook.**

<u>Topic:</u> Measures of Data	<u>Lesson Essential Question:</u> How can we use the properties of distributions to describe the variability in a given data set?
Measures of center	measures that describe a data set by identifying the "center" or middlemost value by a single number. (most common types are: mean, median, and mode)
Measures of variability	measures that describe how spread out or scattered the values are in a data set. (the most common types are: range, quartiles, and standard deviation)
distribution	describes the spread of data in a set or the shape of a data set when graphed

<p>Topic: Measures of Central Tendency</p>	<p><u>Lesson Essential Question:</u> How can we use the properties of distributions to describe the variability in a given data set?</p>
<p>Range (variation)</p>	<p>the difference between the greatest value and the least value in a data set.</p>
<p>Median</p>	<p>the middle term, or the mean of two middle terms, in a data set that is numerically ordered.</p>
<p>Mean</p>	<p>the sum of the terms in a data set divided by the number of terms in the set. Notation: \bar{x}</p>
<p>Mean Absolute Deviation (MAD)</p>	<p>the average of the absolute deviations from the mean. Notation: $x - \bar{x}$</p>

**FIND the
MAD**

**Calculate the MAD of this data set:
5, 8, 9, 11, 12**

$$\bar{x} = \frac{5+8+9+11+12}{5} = 9$$

1. Find the mean, \bar{x}

2. Use a table to find the absolute deviation of each data point from the mean.

$$\text{MAD} = \frac{4+1+0+2+3}{5} = \frac{10}{5} = 2$$

3. Find the MAD

**FIND the
MAD**

**Calculate the MAD of this data set:
6, 10, -5, 14, 10**

$\bar{x} = \frac{6+10+(-5)+14+10}{5} = 7$
1. Find the mean, \bar{x}

2. Use a table to find the absolute deviation of each data point from the mean.

MAD = $\frac{1+3+12+7+3}{5} = \frac{26}{5} = 5.2$
3. Find the MAD

