Cornell Notes	**Topic/Objective:** TEKS: 8.11B *Determine the MAD and use this quantity as a measure of the avg. distance data are from the mean using a data set of no more than 10 data points.*	**Name:**
		Class/Period:
		Date:

Essential Question: ***How can you determine and use the mean absolute deviation of a set of data points?***

Questions:	**Notes:**
What is mean absolute deviation (MAD)?	The mean absolute deviation is a measure of variation. The MAD is the average of how far the elements in a data set are from the "mean" of the data set. YOU MAD????? **Steps for Calculating MAD** 1. Find the average of your data set 2. Calculate the absolute value of each data points distance from the average found in Step 1 3. Find the average of those distances found in Step 2. **Example 1:** Student A has test scores 85, 89, 82, 78 and 89. Student B has test scores 70, 85, 72, 95, and 83. Find the MAD for each student and determine who the more consistent test taker is.
How can I find the mean absolute deviation of the following set {3,6,6,7,8,11,15,16}?	Example: the Mean Deviation of 3, 6, 6, 7, 8, 11, 15, 16 Step 1: Find the **mean**: $\text{Mean} = \frac{3+6+6+7+8+11+15+16}{8} = \frac{72}{8} = 9$

Step 2: Find the **distance** of each value from that mean:

Value	Distance from 9
3	6
6	3
6	3
7	2
8	1
11	2
15	6
16	7

Step 3. Find the **mean of those distances**:

$$\textbf{Mean Deviation} = \frac{6+3+3+2+1+2+6+7}{8} = \frac{30}{8} = \mathbf{3.75}$$

So, the **mean = 9**, and the **mean deviation = 3.75**

Math TALK! What is the difference between a measure of center and a measure of variability?

A measure of center is a number that indicates where the "middle" or center of a data set is, while a measure of variability is a number that indicates how much the data are spread out from the center of the data.

Summary: "CREATE YOUR OWN SUMMARY"