

Mean Absolute Deviation (MAD)

The mean absolute deviation (MAD) is the arithmetic average of the absolute value of the differences between each number and the mean of the collection of numbers.

The MAD allows us to find the average distance the scores are from the mean. The reason we take the absolute value is if we did not, then scores above the mean would cancel out the scores below the mean.

To find the MAD

1. Find the mean of the data.
2. Subtract the mean from each data point and take absolute value
3. Add those absolute values of those difference
4. Divide that total by the number of data points.

$$MAD = \frac{1}{n} \sum_{i=1}^n |x_i - \bar{x}|$$

