Date

## Essential Question: How do we find the mean absolute deviation?

| Questions /Main Ideas                        | Class Notes  |
|--|--|
| What is the mean absolute deviation?         | The mean absolute deviation is an average of how much data differs from the mean.  |
| How do you find the mean absolute deviation? | <ol> <li>Find the mean of the data</li> <li>Find the distance between each data value and the mean.</li> <li>Find the sum of these distances.</li> <li>Divide the sum by the total number of values</li> </ol> |
| Example                                      | 1, 2, 2, 2, 4, 4, 4, 5   |
|  | $Mean = \frac{1+2+2}{8} + \frac{2+4+4+4+5}{8} = \frac{24}{8} = 3$  |
|  | The sum of the distances is $2 + 1 + 1 + 1 + 1 + 1 + 1 + 2 = 10$ .   |
|  | The mean absolute deviation is $\frac{10}{8} = 1.25$ .   |
| Summary                                      |  |

## Summary

We use mean absolute deviation to measure how "spread out" a set of data is. Are they tightly bunched together or all spread out?