

NAME: _____

ALGEBRA I – Chapter 12 Review

This worksheet is due at the end of class. Use your previous notes, the internet, and your classmates as resources to complete the questions.

Getting Started

What is the mode of a data set? How do we calculate it?

What is the mean of a data set? How do we calculate it?

What is the range of a data set? How do we calculate it?

What is the median of a data set? How do we calculate it?

Problem #1: English Test Scores

{9, 7, 8, 8, 7, 8, 6, 7, 5, 6, 5, 6, 7, 7, 8, 9, 7, 6, 2, 6, 7}

Above is a list of student scores on a 10 point English test. Use the scores to answer the following questions.

Calculate:

Mean: _____

Median: _____

Mode: _____

Range: _____

Did the students do well or poorly on this test? How do you know?

Are there any data points that don't seem to fit with the others? If so, which one(s) and why?

Data points that don't seem to align with the rest of the data set are called **outliers**. An example of an outlier in the set {10, 13, 12, 3, 12, 11, 14, 10} is the data point 3 because it is very far from the other data points.

Create a visual representation that illustrates an outlier:

Problem #2: Heights of Trees

{104, 110, 112, 103, 90, 115, 125, 62, 118, 300}

The heights of trees in a forest are listed above in inches. Use the heights to answer the following questions.

Calculate the mean of this data set:

Are there any outliers in this data set? If so, what are they?

Calculate the mean of the data set without the outliers:

Compare your second mean to the first mean. Which one do you think is more accurate? Why?

In your own words, what is an outlier?