SUM IT UP

Dear parent or guardian: This is a summary of the key ideas your child is learning in mathematics. You can use this summary as background as you support your child's work.

(4) Exploring the Median

What Is a Median?

The <u>median</u> is defined as the middle number of a set of data that is ordered from least to greatest. Some people call it a measure of central tendency, because it is found in the centre of data. A median is a type of average.

How Do You Determine the Median for an Odd Number of Pieces of Data?

To determine the median of a set of data, put the numbers in order from least to greatest. List each number as many times as it appears in the data set.

For example, to determine the median of 3, 1, 4, 5, 6, 1, 2, list the data in order:

1   1   2   ③   4   5   6

Since 3 is in the middle, it is the median.

How Do You Determine the Median for an Even Number of Pieces of Data?

To determine the median for an even number of pieces of data, such as 4, 1, 4, 5, 6, 1, 2, 1, you still list the data in order:

1   1   1   (2   4)   4   5   6

There are two middle numbers: 2 and 4.

The median is the number halfway between the two middle numbers: 3.

How Is the Median a Summary of Data?

The median is called a summary statistic because, in some ways, the middle number of a set of data is a way to provide information quickly about a whole set of data. Knowing that 5 is the median of a set of data tells us immediately that there are numbers above 5 and numbers below 5 in the data.

Notes

The median is an alternative to the mean (the most commonly used average) as a piece of summary information. The median is less affected by one or two really extreme pieces of data than the mean is and so, because of that, the median might be considered a more stable description of the set of data.

For example, for the data 4, 5, 6, 7, 8, 9, 10, the median and mean are both 7. But for the data 4, 5, 6, 7, 8, 9, 30, the median is still 7, but the mean is much greater.

Definitions

median: the middle number of a set of data that is ordered from least to greatest; for example, the median of the data 3, 5, 8, 10, 15 is 8