DETERMINE THE MEAN, MEDIAN, AND MODE FOR A GIVEN SET OF DATA

- A **set of data** is a collection of numbers related to a specific topic: scores on a test, weights of objects, high temperatures of the day, students who eat particular lunches, etc.

    o This data can be organized and analyzed using math tools.

- The **mean** is the numerical average of a set of numbers. It is calculated by adding all the values in a set and then dividing by the number of values.

- The **mode** is the middle value, calculated by ordering the values and determining the value halfway between the first and last value.

    o The **mode** is the value which occurs most frequently.

How to det[ermine the mean, median, and mode for] a given set of data

- To dete[rmine the mean, add all the values and divide by the] number of values:

    o **Scores on a series of tests:** 69, 76, 98, 84, 100, 76
    o Add the values → 499
    o Divide by the number of values: 499 ÷ 6
    o **The mean is 83.17**

- To determine the **median,** order the values and then choose the value in the middle

    o **Scores on a series of tests:** 76, 98, 84, 100, 76
    o Order: 76, 76, 84, 98, 100
    o The median is the "middle" value
    o **The median is 84**

- To determine the **median of an even number of values**, order the values, find the middle, and calculate the average between the two middle scores:

    - **Scores on a series of tests:** 65, 76, 98, 84, 100, 76
    - Order: 65, 76, 76, 84, 98, 100
    - The middle of this series is between 76 and 84
    - The median is the average of 76 and 84
    - Median = (76 + 84) ÷ 2
    - **The median is 80**

- To determine the **mode**, look for the value which appears most frequently:

    - **Scores on a series of tests:** 65, 76, 98, 84, 100, 76
    - Look for the value that occurs most frequently
    - 2 scores are 76, the other scores occur only once
    - **The mode is 76**

- It is pos   same value
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Try This!

What is the

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What is the mode for this set? 43, 54, 54, 23, 43, 43

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What is the median for this set? 13, 17, 19, 25, 29

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What is the median for this set? 35, 67, 23, 17, 43, 65, 81

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What is the median for this set? 45, 32, 51, 34, 25, 30

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