1

CDC

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Question: Will the mean or median increase if last number in the data set is increased.

Claim: The mean will change but the median will not. The mean is affected because It uses all the numbers The median is not affected because it cares about how many numbers their are.

Data

Mean

1, 2, 3, 4, 5

$\frac{1+2+3+4+5}{5} = 15$ $5\overline{)15}$ ^{3} mean = 3

when the last number increases the mean will increase.

1, 2, 3, 4, 10

$\frac{1+2+3+4+10}{5} = 20$ $5\overline{)20}$ ^{4}.

The mean increased by 1 when I increased the last number.

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Data continued:

Median

~~1~~, 2, 3, ~~4~~, ~~5~~ The median is 3

When I change the last number the median will not change.

~~1~~, 2, 3, ~~4~~, ~~10~~ The median did not change.

Commentary:

In order to know what will change you must know what median and mean are. Mean is the average of all the numbers.

$$\frac{1+2+3+4+5}{5} = 3$$

The first step to find mean is to add up all the numbers.

$1+2=3+3=6+4=10+5=15$

The next step is to divide the sum of all the numbers by how many numbers there are.

#3

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commentary continued:

$1+2+3+4+5 = 15$

1, 2, 3, 4, 5

Theirs 5 numbers

So we will divide 15 by 5.

$15 \div 5 = 3$.

That's how you find mean.

Median is the middle number out of all the numbers.

~~1~~, ~~2~~, (3), ~~4~~, ~~5~~

3 is the middle number

So, 3 is the median.

If their are 2 numbers in the middle.

~~1~~, ~~2~~, 3, 4, ~~5~~, ~~6~~

Then you find the average between the 2 numbers.

$3+4=7$ $7 \div 2 = (3.5)$

#4

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Commentary Continued!

Now that you know what median and mean are I can explain to you whitch one will increase

The mean will increase because it uses all the numbers and the numbers value.

The median will not increase because median cares about How imany numbers their are. The Median only cares about one numbers value.