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6.SP.3, 6.SP.5

Question:
Will the mean or median increase, if the last number of the data set is increased?

Before you start you have to know the vocabulary.

Important Vocab

Mean: The averag

Median: the middle number

Awnser: It will effect the mean but it will not effect the median.

The mean is efected because it is average. Higher numbers = higher mean. Heres a example, if you start calculating the mean of, 5, 7, 8, 11, 13, 15.

$$\frac{5+7+8+11+13+15}{6} = \frac{59}{6} = 9.8\overline{3}$$

but if your 15 suddenly changes to 90 you averag drastically changes,

$$\frac{5+7+8+11+13+90}{6} = \frac{134}{6} = 22.33$$

So the mean Will change.

The median will not change because your finding the middle number. We'll use the same numbers

5, 7, 8, 11, 13, 15

★ you cross out the first and the last all the way down

★ If theirs 2 in the middle find the average

$8+11=19$

$19 \div 2 = 9.5$

(9.5)

We got 9.5 now if we change the 15 to 90 it will have the same awnser

5, 7, 8, 11, 13, 90

$8+11=19$

$19 \div 2 = 9.5$

So this all shows that the last number increases the mean increases but the median will stay the same.