

# January 28, 2020

- 1. 15 Min for HW
- 2. Turn in HW packet
- 3. CALC
- 4. Notes - Warm Up



Mom: Use your own money

Me:



Warm UP

What does deviation mean? THINK - if you deviate from the plan, what are you doing?

Go away from the avg.

Notes

Standard Deviation is a measure of spread.  
What does it tell us?

**ON AVERAGE, HOW FAR EACH DATA VALUE IS FROM THE MEAN.**

Small standard deviation, low variability.

high standard deviation, high variability.

Calculator Demo

Do you know how to enter data in your calculator? If so, enter the following set:

93 93 91 91 72 96 95 73 82 45

88 80 86 81 78 86 89 92 91 98 85

min = 45  $Q_1 =$  80.5  $Q_2 =$  88  $Q_3 =$  92.5 max = 98

Mean = 85 St. Deviation = 11.6

## Transforming Data

Your teacher is considering curving the last quiz scores.

**Scores:**

93    93    87.5    91    72    96    95    93.5    73    82    45

1. Calculate the mean, standard deviation, and 5 number summary.  $\bar{x} = \underline{83.7}$      $S_x = \underline{15.4}$

Min: 45    Q<sub>1</sub>: 73    Q<sub>2</sub>: 91    Q<sub>3</sub>: 93.5    Max: 96

2. Curve each original test score by 5 points.

New Scores:

98    98    92.5    96    77    101    100    98.5    78    87    50

3. Calculate the mean, standard deviation, and 5 number summary of the new scores.  $\bar{x} = 88.7$      $S_x = 15.4$

Min: 50    Q1: 78    Q2: 96    Q3: 98.5    Max: 101

4. Question: What happened to our numerical measures after adding 5 to each score?

5. Your teacher has 3 favorite students. Instead of giving everyone 5 points, she gives only her favorite students 10 points. Will this change our numerical measures? Is there a pattern like before?

**DIRECTIONS:**

Partner 1: \_\_\_\_\_

Partner 2: \_\_\_\_\_

Partner 1 will text first, Partner 2 will time. Then switch.

MISSION: Text the following phrase including punctuation in the fastest time with ZERO mistakes. If you make a mistake you must start again. You will complete a total of 3 trials. (Each trial must be done perfectly without any mistakes to count.)

**Standard deviation is a measure of spread. It shows us the average distance each data point is from the mean. It is so awesome that my teacher, ~~Mr. Thornton~~, taught us about this!**

**Mr. Thornton**

Record your time in seconds in the chart below. Round to the nearest second.

1:13  
↓  
73 sec.

Partner 1	
Trial Number	Time (seconds)
1	
2	
3	

Partner 2	
Trial Number	Time (seconds)
1	
2	
3	