ALGEBRA II
Chapter 11 section 2
Apply Transformations to Data
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FOCUS:
Are all the statistics of a data set affected when you transform the values in a data set?

WARM – UP:

The water temperatures for one week in July in Key West, Florida, are listed below.

$$85º, 87º, 87º, 84º, 84º, 86º, 87º$$

1. Mean_____   2. Median_____   3. Mode_____

4. Range_____   5. Standard Deviation_____

NOTES:

> **ADDING A CONSTANT TO DATA VALUES**
> When a constant is added to every value in a data set:
>
> - The mean, median, and mode of the new data set can be obtained by adding the same constant to the mean, median, and mode of the original data set.
>
> - The range and standard deviation are unchanged.

The data below give the weights of 5 people. At the end of a month, each person had lost 3 pounds. Give the mean, median, mode, range, and standard deviation of the starting weights and the weights at the end of the month.

$$138, 142, 155, 140, 155$$

STARTING WEIGHTS

$\overline{x}$ _____   Median_____   Mode_____   Range_____ σ _____

WEIGHTS AT END OF THE MONTH

$\overline{x}$ _____   Median_____   Mode_____   Range_____ σ _____

Give the mean, median, mode, range, and standard deviation for the starting weights of the 5 people in the previous example in kilograms.

138, 142, 155, 140, 155

1 kg $\approx$ 0.45 pound

$\overline{x}$ _____   Median_____   Mode_____   Range_____ σ _____

Let's see if you comprehended what we worked on in class…

Try _____ for homework