## SAT RELEASED TEST ADMINISTERED ON APRIL 10, 2018

## **CLASSROOM SAT SESSION #5 – VERSION 1**

## **Calculator Portion Released Test:**

17.)

Data Set A:

25,550 40,430 49,150 62,590 73,670 118,780 126,04	25,550
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Data Set B:

22,860	55,020	173,730	300,580	358,920	456,170	603,300

Which of the following is true about the standard deviations of the two data sets in the table above?

- A.) The standard deviation of data set B is larger than the standard deviation of data set A.
- B.) The standard deviation of data set A is larger than the standard deviation of data set B.
- C.) The standard deviation of data set A is equal to the standard deviation of data set B.
- D.) There is not enough information available to compare the standard deviations of the two data sets.

Explain how you solved this problem:

In statistics, the standard deviation is a measure that is used to quantify the amount of variation or dispersion of a set of data values. A low standard deviation indicates that the data points tend to be close to the mean of the set, while a high standard deviation indicates that the data points are spread out over a wider range of values.

We are normally interested in knowing the population standard deviation because our population contains all the values we are interested in. Therefore, you would normally calculate the population standard deviation if (1) you have the entire population or (2) you have a sample of a larger population, but you are only interested in this sample and do not wish to generalize your findings to the population.