

Practice Problems: Standard Deviations and Variance

1. What is measured by each of the following:

Sum of Squares (SS)

Variance

Standard Deviation

2. Calculate the standard deviation for the following population of scores:

8 5 3 7 5 6 4 7 2 6 5 3
6 4 5 7 8 6 5 6

3. Calculate the mean, SS , variance, and standard deviation for the following sample:

6 8 4 3 5 7 4 3

4. For the following data:

1 4 3 6 2 7 18 3 7 2 4 3

Compute the mean, standard deviation, and median. Then explain which measure of central tendency provides a better description of the sample.

5. What happens to a variance or standard deviation when a constant is added? What if the variance and standard deviation is multiplied by a constant?

6. Calculate the standard deviation for the following three sample data sets:

a. 13 21 27 31 35 24 28 32 17 20

b. 100 115 112 113 95 87 90 104 107 98

c. 55 54 59 55 52 51 57 49 61 57