Understanding Standard Deviation

You will need a graphing calculator for this assignment

Pull-Up Data:

The following data was observed by a gym teacher, of the number of pull-ups by 11th graders at Mount Pleasant High School. Use your calculator to determine the mean and standard deviation.

2, 3, 4, 3, 2, 5, 5, 6, 6, 6, 9, 4, 10, 3, 2, 1, 9

1. Mean:_____ Standard Deviation:_____

Six of the school football players were gone the day that the pull-up test was given, their results are 7, 7, 8, 10, 10, 9. Add these points to the original data.

2. How did these points change the mean?

3. How did these new data points change the Standard Deviation?

4. In general, what is the relationship between the spread of the data and the standard deviation?

5. Create a definition of standard deviation that makes sense to you.