# Statistics Homework Day 3

## Mean and standard deviation of a population

In your class notes today you studied the mean and standard deviation of distributions. Now you will calculate the mean and standard deviation of a list of data.

**Definition.** The **mean** of a list of data points is

**Definition.** The **variance** of a list of data points with mean is

**Definition.** The **standard deviation** of a list of data points with mean is

Here is a list of scores from 15 students who took a 21-point quiz.

* L = 15 , 19 , 18 , 15 , 17 , 19 , 19 , 17 , 21 , 15 , 19 , 20 , 11 , 16 , 17

1. Use the formula for mean to calculate the mean of the scores.
2. Calculate the variance and standard deviation, showing your work.

Given the following lists of data

* L1 = 85, 67, 77, 82, 70, 78
* L2 = 85, 67, 77, 82, 78, 45
* L3 = 85, 77, 82, 70, 87, 45

1. Calculate the mean and standard deviation and median of each list separately. Determine whether the mean or the median is the more representative “measure of central tendency” for each data set.