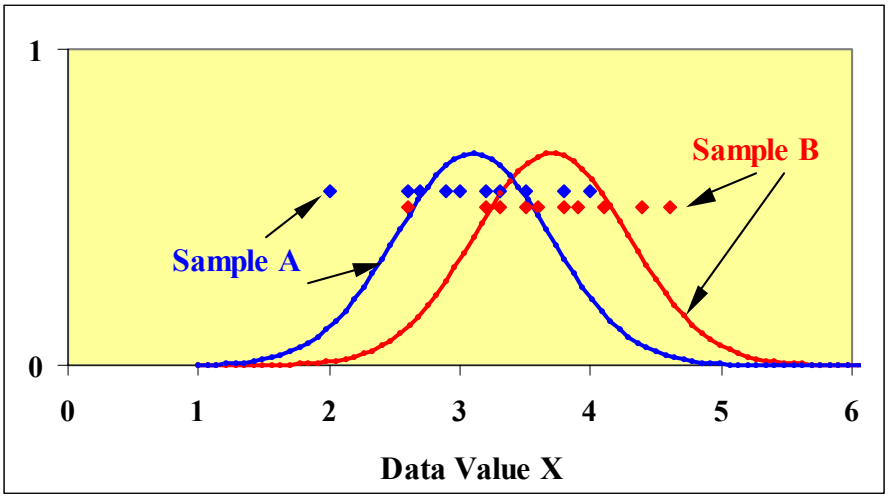
As an example, we used the t-test calculator provide at the College of Saint Benedict site to process the two sets of data identified as Group A and Group B below. **'t-test from College of Saint Benedict Saint John's University Physics'**
http://www.physics.csbsju.edu/stats/t-test.html



The Graph shows the individual data points and the corresponding t-distribution for each data set. (Each t-distribution shown has the same mean and standard deviation as its corresponding data set.) The vertical axis is the probability density function and the area under each t-distribution curve is normalized to 1.0.

The results below suggest that the means of the two samples are not the same. That is the chance that the two samples actually are derived from a single population (with one mean) is only 3.7%.

Student's *t*-Test: Results

The results of a unpaired t-test performed at 14:33 on 29-JUL-2004

t= -2.26 sdev= 0.594 degrees of freedom = 18

The probability of this result, assuming the null hypothesis, is 0.037

Sample A: Number of items= 10 2.00 2.60 2.70 2.90 3.00 3.20 3.30 3.50 3.80 4.00 Mean = 3.10 95% confidence interval for Mean: 2.705 thru 3.495 Standard Deviation = 0.594 Hi = 4.00 Low = 2.00 Median = 3.10 Average Absolute Deviation from Median = 0.460	**Sample B:** Number of items= 10 2.60 3.20 3.30 3.50 3.60 3.80 3.90 4.10 4.40 4.60 Mean = 3.70 95% confidence interval for Mean: 3.305 thru 4.095 Standard Deviation = 0.594 Hi = 4.60 Low = 2.60 Median = 3.70 Average Absolute Deviation from Median = 0.460