**Introduction: Tests of Significance**

**#1 TEST OF SIGNIFICANCE – MEANS ONE-SAMPLE**

Last year, a group of Business Statistic students conducted a stratified random sample of 36 GHCHS female students. This survey asked students the following question.

*How much money have you spent shopping in the last month? Report your answer in $dollars.*

After completing the survey, students placed the data into one column of Excel. Excel’s data analysis toolpak reported the following results for the 36-student sample.

Sample Mean = $93.54

Sample Standard Deviation = $22.30

Now let’s consider what this shows.

*Is there statistically significant evidence that the mean amount of money spent shopping in the last month exceeds $89.00?*

**#2 TEST OF SIGNIFICANCE – PROPORTIONS ONE-SAMPLE**

Last year, a group of Business Statistic students conducted a stratified random sample of 36 GHCHS female students. This survey asked students the following question.

*How you ever downloaded videos illegally? Report your answer as Yes or No.*

After completing the survey, students placed the data into one column of Excel. Excel’s Countif function found that nine female students responded “Yes”. This corresponds to a sample proportion of 19.4% (7/36).

Now let’s consider what this shows.

*Is there statistically significant evidence that the proportion of female GHCHS students who have downloaded videos illegally is less than 35%?*