

In groups of 2-4 students, decide on a survey question to use for this project. The question must have a specific, objective number answer for each person surveyed and a reasonable spread of values.

Think about this carefully.

Write the survey question on your paper.

Collect 30 responses to your question including one response from each group member.

List the 30 responses on your paper.

**NOTE: EACH GROUP MEMBER MUST HAVE THE SAME LIST OF 30 RESPONSES.**

Use that set of 30 values to do the following:

Create a stem-and-leaf plot of the values (in order).

Draw a box-and-whisker plot. Clearly identify the median and  $Q_1$  and  $Q_3$ . Determine and label the IQR. Show the arithmetic work to determine whether there are any outliers. Mark any outliers with a dot and draw your whisker to the next closer data value.

Draw a histogram using at least six, but no more than ten evenly-spaced intervals.

Determine and label the mean. Round to the nearest 0.1. As you do the work to determine the standard deviation, show the complete list of differences and their squares as well as the sum of the squares. Round your answer for the standard deviation to the nearest 0.01. Clearly label each of these steps.

Determine the z-score for your own response. Show how you determined this.

Each student is to turn in ALL of the above work organized in a neat and orderly fashion. Group members are encouraged to compare work, but do NOT photocopy each other's work!!!

List your name at the top and also all of the other members of your group. Do this on the inside and the outside of your paper.

Turn in all group members' papers together.

The grade for this project will count as two quiz scores (20 points).

	Original data values	Data values in order
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Do not continue unless all group members have matching tables.