Name_____

ALGEBRA II JOURNAL
Statistics

1. Statistics is the science of _____, _____ and _____ information about a set of data.
2. (a) A _____ is a statistical graph that looks like a bar graph. Each bar is called a _____ and represents _____ .
   (b) To properly graph & scale a histogram on your calculator, you must scale the graph by changing the _____ and set the width of each bar by changing the _____.
3. Truncating a number to the tens place means to _____ _____ .
4. (a) The measures of variation measure _____ while the measures of central tendency measure _____ .
   (b) If the data is skewed to one side or scattered, the best measure of central tendency to use is _____ while the best measure of variation to use would be _____ .
   (c) If the data is centrally distributed, the best measure of central tendency to use is _____ while the best measure of variation to use would be _____ .
   (d) _____ is the measure of variation most affected by an extreme value while the measure of central tendency most affected by an extreme value is _____ .
5. (a) To calculate all of the basic statistics in your calculator, you must first enter the data on a _____ page and then press _____—_____— _____ —_____.
   (b) To calculate mode in your calculator, you must _____ the column to be _____ by _____. Then press _____— _____—_____.
6. Standard deviation is_____ _____ .
7. (a) Each box of a box-and-whisker plot represents _____% of the data while an individual whisker represents _____% of the data.
   (b) A box-and-whisker plot visually displays the _____ of the data.
8. A z-score of 2.1 means that an individual scored _____ *(circle one: above/below),* while a z-score of -1.3 means than an individual scored _____ _____ *(circle one: above/below)* the mean.
9. (a) If Melanie scored at the 88th percentile on the ACT, that means _____ _____ .
   (b) If you know an individual's raw score, you can find the corresponding percentile rank by calculating the _____ and then finding the percentage to the _____ using the _____.

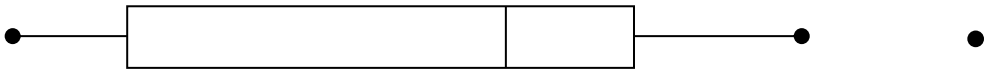
10. List the following rules, facts, or formulas.
    a) Name the 3 measures of central tendency & describe the method for calculating each.

_____ _____ _____

    b) Name the 3 measures of variation & describe the method for calculating each.

_____ _____ _____

    c) Label each break point and end point with the name of the value used to locate each point.



    d) 3 steps for calculating outliers

    e) Formula for z-score

    f) Draw the normal curve and break it into sections showing the standard percentages. *Be sure to label the x-axis!*

    g) List the 5 sampling methods and describe how each method is performed.