Ma 097 ~ Probability and Statistics
PreTest Study Guide

For this test, you will have to demonstrate proficiency in the following skills:

- Observing the correlation (or lack thereof) of a scatterplot.
- Identifying the line of best fit for a scatterplot.
- Making a frequency distribution table from a set of data.
- Reducing a ratio to its simplest form.
- Interpreting data presented with a Bar Graph. *(Review from module 084)*
- Interpreting data presented with a Pie Graph. *(Review from module 084)*
- Interpreting data presented with a Stem and Leaf Graph (with these you can find the exact median, range, and mode of the data). *(Review from module 084)*
- Interpreting data presented with a Box and Whisker Graph (with these you can find the exact median and range of the data, as well as where 25% above and below the median fall—the 50% at the center). *(Review from module 084)*
- Related to the Box and Whisker Graph idea, being able to identify the lower and upper quartile of a set of data. (AKA Q_1 and Q_3), and calculate the interquartile range.
- Calculating Combinations (usually presented as ${}_nC_r$) and Permutations (${}_nP_r$).
- Making predictions about probability with a pair of dice, a deck of cards, or a spinning wheel. This is written on the test, but in case you are not familiar with a standard deck of cards:
    - There are 52 cards in a deck.
    - There are 4 suits with 13 cards each.
        - 2 red suits - hearts and diamonds
        - 2 black suites - clubs (look like clovers) and spades
        - Each suit has an Ace, numbered cards 2-10, and 3 "face" cards—Jack, Queen, and King.
- Using the formulas for Probability of Union $P(A \cup B)$ and Intersection $P(A \cap B)$.
- Applying any of the above to a real-world situation.