Math 310 - Dr. Miller - Topics List for Exam #3, Spring 2017 - Thursday, Apr. 27, 2017

Prepare for the exam by carefully studying this list with reference to your notes, in-class activities, and homework assignments. Strive to master the concepts, explanations, and computational techniques for use in general.

Decimal Appearances:

1. Round decimals correctly when permitted.
2. Use and understand bar notation to represent repeating decimals.
3. Use and understand ellipsis notation for non-terminating decimals.
4. Know which decimal appearances can and cannot be converted to fractions (are/are not rational).
5. Convert appropriate decimals to fractions, showing work. Create and recognize irrational numbers.
6. Convert fractions to decimals; round, use bar, or use ellipsis as allowed.
7. Be careful about trusting your calculator display.
8. Put decimal numbers in order of size, including those that start in an unhelpful notation.
9. Define the term denseness; find rational/irrational numbers between two decimals.

Percents:

1. Use correct notation to convert among decimals and percents.
2. Round to the nearest tenth, hundredth, etc. of a percent when asked.
3. Solve percent word problems that don't have any "real life" context.
4. Solve basic discount/mark-up problems; careful about which number is IS vs. OF.

Statistics:

1. Create, label all the types of graphs listed on the Summary except scatter, box plots.
2. Be prepared for graphs to require percents, as in textbook HW.
3. Tell what each type of graph is best for; make the best choice for a given setting.
4. Read and interpret graphical information, as in HW.
5. Find the mean, median, and mode(s) of a list of scores.
6. Find the mean or total when individual scores are not given (see HW).
7. Given a mean, find the new mean when a few new scores are added, deleted.
8. Find a mean when given the means for some groups of data, as in the cheerleader problem.
9. Create data that has specified mean, median, mode, or standard deviation behavior, as in HW.
10. Find the range of a given set of data; use given range to find missing data, as in HW.

Bring a non-cell phone calculator (no text-based memory) for the exam.