Midterm F11 Review

Be familiar with these ideas and you'll do well:

- Boxplots
- Five-number summary
- Symmetry/Skewness
- Modality (unimodal, etc)
- Outliers
- Histogram
- Population parameters (mu, sigma)
  - defining in the context of a problem
- Sample statistics (y-bar, s, n)
- One-sample t-test
  - Null and alternative hypotheses
    - state in notation and words
- p-value
  - how used for deciding between hypotheses
  - interpretation
- significance level (alpha) for test and CI
- stating conclusion of hypothesis test
- CI confidence interval
  - interpretation
  - using for hypothesis test
- Type-I and Type-II errors
  - definitions
  - when can you make each
- Normal probability plot and tests
- Paired data, how to identify
- Two-sample t-test
  - Null and alternative hypotheses
    - state in notation and words
  - Pooled versus Satterthwaite
    - How to tell these apart
      - pooled var, degrees-of-freedom df
  - assumptions
- ANOVA
  - Null and alternative hypotheses
    - state in notation and words
  - F-test
  - Pairwise (multiple) comparisons
    - Fisher (LSD), Tukey, and Bonferroni
    - How to tell which is being used from output