

Exam #1 - Review Sheet

Exam #1 will be Wednesday, March 9. The exam will cover the following sections/topics:

- **Section 2.3:** Frequency tables, frequency histograms, relative frequency
- **Section 2.5:** Paired data sets, scatterplots
- **Section 3.2 & 3.3:** Sample means and sample median
- **Section 3.4:** Sample variance & sample standard deviation
- **Section 3.7:** Positive vs. negative correlation, the sample correlation coefficient
- **Sections 12.1-12.3:** Linear Regression: calculating the linear regression parameters, using the linear regression model to calculate predicted values
- **Sections 4.1-4.3:** Intro to Probability

Prepare for the exam by reviewing the daily handouts, the examples in the textbook and the homework exercises—especially the homework exercises listed below. For each of the sample statistics we have discussed, you should be able to compute them using the spreadsheet commands, but you do not need to memorize any formulas.

HW #1:

- **Section 2.2:** #8 (creating frequency & relative frequency tables and histograms for a given dataset)

HW #2:

- **Section 3.2:** #3 (including scatterplot/correlation questions), #14 & #17 (sample means)
- **Section 3.5:** #3 (calculating sample variance using `=var`, interpreting variance)
- **“Standard deviation exercise”** using quiz score data on HW#2 pdf (calculating variance and standard deviation using the formula, i.e., deviations, squared deviations, sum of squared deviations, etc.)

HW #3:

- **Section 3.7:** #3 (creating a scatterplot and calculating a sample correlation coefficient using `=correl`)
- **Sections 12.2:** #3 (creating a scatterplot, calculating the linear regression parameters, **using the linear regression model to calculate predicted values**)
- **Sections 4.2:** #1, #2, #4
- **Sections 4.3:** #1(a)-(d), #9, #10