MATH225
Final Exam Review

A little more focus—We have covered so much material this term so here is a review that will help you focus your studying a little bit more. These are the concepts that you want to review before you take the Final Exam.

1. Understand the relationship between **scatter plots** and tables and determine patterns.
2. Find the **linear regression equation** given a list of data points.
3. Make **predictions** using a line of best fit.
4. Compute and interpret the **coefficient of determination.**
5. Calculate the **correlation coefficient.**
6. Understand the notation and interpret the **parameters of a normal distribution.**
7. **Standardize** a normally distributed random variable.
8. Use the **Empirical Rule** for normal distributions to estimate probability.
9. Use the **normal distribution** to compute probability.
10. Point estimates, margins of error, and confidence intervals.
11. Generate a **confidence interval using the Empirical Rule.**
12. Find the **sample size** required to estimate a population mean with the given confidence level.
13. Calculate the **sample size** required to estimate a population proportion with a given confidence level.
14. Identify the **null and alternative hypothesis.**
15. Distinguish between **one- and two- tailed hypothesis tests** and understand possible conclusions.
16. Compute the value of the **test statistic (z-value) for a hypothesis test for one population mean with a known standard deviation.**
17. Determine the **p-value for a hypothesis test for the mean (population standard deviation known).**