

Stat 610 Midterm Study Guide

The exam will be in class on Tuesday October 15. There will be approximately 10 short-answer questions, with topics taken from the following list:

- Data structures: Know the difference is between vectors, lists, arrays, and data frames.
- Vectorization: No need to memorize which functions are vectorized, but if I give you a function and tell you what argument vectorizes, you should be able to tell me what the output will look like.
- Regular expressions
 - If I provide you with a regular expression and a set of strings, you should be able to tell me which strings match the regular expression.
 - If I describe a set of strings I would like to match with a regular expression, you should be able to provide a suitable regular expression.
- Functions and their environments: If I give you a function and a call to that function, you should be able to draw the set of environments created in the course of the function call and the variables in each environment.
- Split/apply/combine: If I describe a data frame/array and desired output from a split/apply/combine strategy, you should be able to tell me
 - How the data frame should be split
 - What function should be applied to each split
 - What function in R you would use to perform the operation