

The exam is scheduled for Saturday, 6 PM, in our classroom. There will be a closed-book portion that we will take in the classroom and then you may move to the lab to take the computer-aided portion. The exam will be approximately twice as long as a test but you can have all three hours to complete it. The test will consist of the following type of questions.

1. There will be questions that are repeated from the first three tests. These might be repeated verbatim or be somewhat changed (e.g., same question, different numbers).
2. There will be questions (on the closed book portion) about Chapter 8, the material covered since the last test.
3. There will be some “stories” for which you will have to describe the data analysis underlying them. These will be stories like we have been looking at during the first few minutes of each of the last few classes.
4. There will be some data to analyze (much like the last test). There will again be four such situations and the data will be available in advance.
5. There may be a couple of questions that don’t fit any of the above categories!

Data Stories

The data are available by using

```
source('http://www.calvin.edu/~stob/data/exam.R')
```

1. The dataframe `rd` has the results of an experiment that measured the time it took 78 subjects to see the picture in a random dot stereogram. There were two groups of subjects: the VV group who were told what they were going to see, and the NV group who were not told.
2. The dataframe `nc` gives measurements of the time it took light to pass a certain distance as measured by Newcomb in 1874. (The units are such that multiplying the given values by 1000 and adding 24 gives the time in millionths of seconds to pass a certain distance.) The currently accepted “true” value is 33.02.
3. The dataframe `sr` gives the ACT scores and the GPA of 80 seniors chosen at random from the 2003 senior class.
4. The dataframe `bball` gives the per game statistics of major league baseball teams over the five years 1994–1998. The intended use of these statistics is to help develop a model for predicting RUNS from (some of) the other variables.