

1. We recommend that you use StatKey in Google Chrome and that you run edX in a different browser, or at least a different tab in your browser, when you are taking timed quizzes and exams. Practice this regularly when doing homework.

Competition between different browsers is handled very efficiently by the operating system, which suggests using different browsers. Chrome is recommended because Chrome has the fastest javascript of the major browsers, and is efficient at switching between different applications.

2. Do not use other simulation software besides StatKey for simulations to find confidence intervals and p-values.

When people use other software, including scripts they write, it isn't clear that the same choices are being made for all aspects of the simulation, thus it isn't clear that the answers will agree enough with the simulation we are using to produce the solution key.

The teaching staff will not, in this class, discuss differences in the simulations produced by different applets or scripts. We agree that those might be important to users of those, but such discussions are simply not practical in a class with this many students and this many different types of problems to solve with simulation.

StatKey is used mainly because it provides one interface to do the calculations for all the main statistical procedures, and secondarily because it makes many interesting datasets easily available. That makes it possible to handle all of the typical applied statistics techniques, with discussion of both simulation-based and "normal-theory" based methods, in so few weeks of instruction, as well as including some analyses for which we don't have normal-theory based methods. (Weeks 5, 6, 10, 11, and 12.)

3. Recall the multiple-choice questions in the Week 0 Orientation Problems. Review that before beginning to answer questions in these assignments.
4. Do enough simulations to develop a reasonable understanding of the variability of the results as well as the center value. Here is what we expect.
  - a. Do the simulation 5 times with about 1000 replications. Order your results and observe the center and the variability of your results.
  - b. Look at the answer choices. Does what you see in the variability of your results suggest that you can easily be sure which of the multiple-choice answers to choose?
  - c. If not, do five more simulations and now look at the results for all ten values and consider the median for your answer.
  - d. Continue that until you feel comfortable choosing an answer.
5. Are you feeling tempted to simply forego doing simulation-based methods at all and use normal-theory methods to answer the statistics questions?

That would not be surprising, of course, if your goal is simply to get the problems right. But there are a couple of reasons not to do that.

One is that fact that the title of this course includes "simulation-based statistics" indicates that, for making progress in the program, you are expected to learn about simulation-based methods.

A second is that, we have, in several instances, set up problems and answer choices so that you will not obtain the correct answer if you use a normal-theory method correctly instead of using the simulation method correctly.