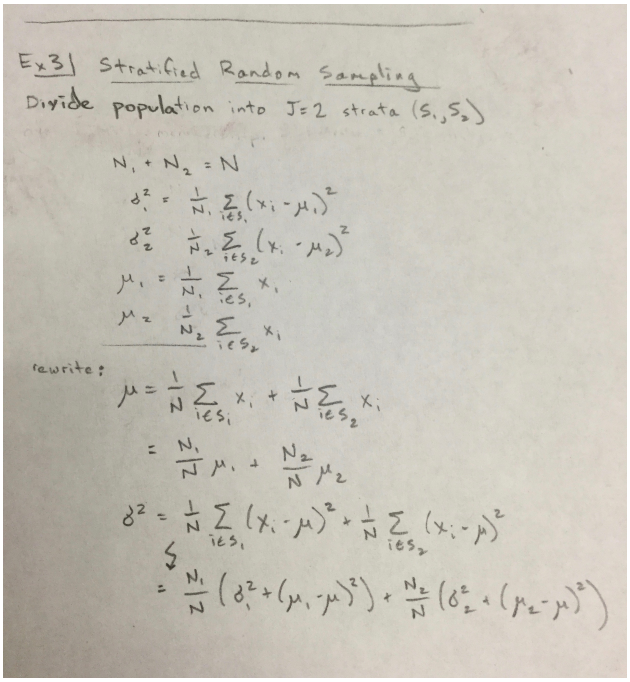
MATH 392 Problem Set 1

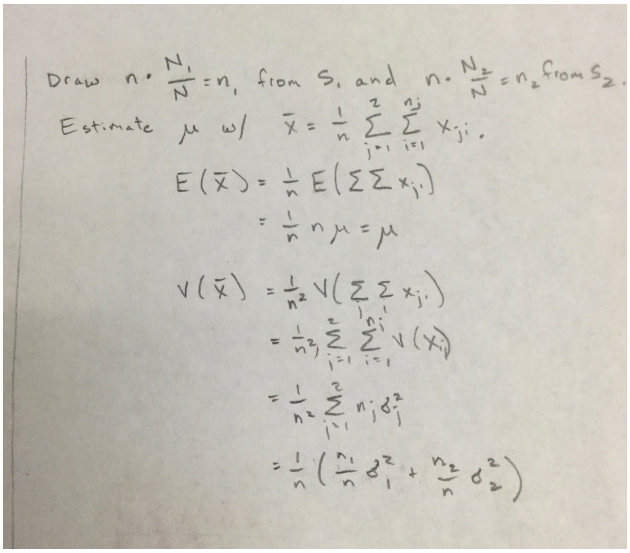
Exercises from the Book

7.1: 1 - 4

Practice with LaTeX

Please transcribe the mathematics found below into LaTeX using the snippets of LaTeX available in the Slack thread. If you see errors or inconsistencies in my hand-written notes, please correct them. We'll start class on Friday by discussing the link between the code shown in the slides and the analytical approach below.





Practice with R

Adapt the code from the slides to produce a single ggplot with two density curves on it: one with the density of 5000 $\bar{x}$s estimated through SRS and 5000 $\bar{x}$s estimated through stratified sampling. All of the code to make this plot can be copied from the slides but I'd like you to make one important change: create a scenario that has *three* strata. It's up to you to pick the parameter values that define that population. Include in your pdf both the single plot and all of the code necessary to create it.