432 Quiz 1 (Instructions Only)

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Links

All links relevant to this Quiz will be found starting at 5 PM on 2024-02-22 at https://github.com/THOMASELOVE/432-quizzes-2024/tree/main/quiz1.

This will include links to:

- the Main Document (this pdf) containing the instructions and questions
- the Google Form Answer Sheet, and
- the data sets we are providing

Deadline

The deadline to complete your work and submit the Google Form Answer Sheet is Tuesday 2024-02-27 at Noon. All of your answers must be submitted through the Google Form Answer Sheet found on the links page by the deadline, without exception. The form will close at that time, and no extensions will be made available, so please do not wait until the last moment to submit. We will not accept any responses except through the Google Form.

Instructions

The complete PDF document that you'll get on Thursday at 5 PM is **32** pages long (while this document is just 4 pages long.) There are **26** questions on this Quiz, not counting the Bonus question on Campuswire. It is to your advantage to answer all of the Questions. A blank response cannot possibly score better than an incorrect one, a guess might be correct (or at least partially correct), so you should definitely answer all of the questions.

The Google Form Answer Sheet

The Google Form Answer Sheet contains places to provide your responses to each question, and a final affirmation where you'll type in your name to tell us that you followed the rules for the Quiz. You must complete that affirmation and then submit your results. When you submit your results (in the same way you submit a Minute Paper) you will receive an email copy of your submission, with a link that will allow you to edit your results. The Answer Sheet works like a Minute Paper, in that you must be logged into Google via CWRU to access it.

If you wish to work on some of Quiz 1 and then return later, you can do this by [1] completing the final question (the affirmation) which asks you to type in your full name, and then [2] submitting the Quiz 1 Answer Sheet. You will then receive a link at your CWRU email which will allow you to return to the Quiz 1 Answer Sheet as often as you like without losing your progress.

The Data Sets

I have provided **five** data sets (called **dat01.csv**, **dat11.csv**, **dat18.csv**, **dat23.Rds** and **dat24.csv**) mentioned in the Quiz. They may be helpful to you.

What does the Quiz cover?

Quiz 1 includes material from the first 11 classes in 432, including all of Jeff Leek's *How to be a Modern Scientist.*

Bonus Question on Campuswire

Remember to complete the bonus question for Quiz 1 now available on Campuswire. Look for the Quiz 1 Bonus Question: "How to be a modern scientist" post (it's #40), and reply to it on Campuswire in response to that Question by the deadline for this Quiz to obtain credit. The bonus question will be worth either 3 or 4 points (I'll decide based on how the rest of the Quiz goes) for a complete and well-written response, with some partial credit also potentially available.

Scoring and Timing

All questions are worth between **3** and **5** points, adding to a total of **100** points, again not counting the Bonus question on Campuswire. The questions are not in any particular order, and range in difficulty from "things Dr. Love expects everyone to get right" to "things that are deliberately tricky". Some questions will take more time than others to answer.

The Quiz is meant to take 5-6 hours to complete. I expect most students will take 3-8 hours, and some will take as little as 2 or as many as 10. Again, it is **not** a good idea to spend a long time on any one question.

Dr. Love will grade the Quiz, and results (including an answer sketch) will be available by class time on Thursday 2024-02-29.

Getting Help

This is an open book, open notes quiz. You are welcome to consult the materials provided on the course website and that we've been reading in the class, but you are not allowed to discuss the questions on this quiz with anyone other than Professor Love and the teaching assistants. You will be required to complete a short affirmation that you have obeyed these rules as part of submitting the Quiz.

If you need clarification on a Quiz question, you have exactly one way of getting help:

- You can ask your question via email to **431-help at case dot edu**.

During the Quiz period (2024-02-22 through 2024-02-27) we will not answer questions about Quiz 1 except through the email listed above. We promise to respond to all questions received before 9 AM on 2024-02-27 in a timely fashion.

When Should I ask for Help?

We recommend the following process.

- If you encounter a tough question, skip it, and build up your confidence by tackling other questions.
- When you return to the tough question, spend no more than 10-15 minutes on it. If you still don't have it, take a break (not just to do other questions) but an actual break.
- When you return to the question, it may be much clearer to you. If so, great. If not, spend 5-10 minutes on it, at most, and if you are still stuck, ask us for help.
- This is not to say that you cannot ask us sooner than this, but you should **never, ever** spend more than 20 minutes on any question without asking for help.

A few cautions about asking us questions

- Specific questions are more likely to get helpful answers.
- We will not review your code or your English for you.
- We will not tell you if your answer is correct, or if it is complete.

Writing Code into the Answer Sheet

Occasionally, we ask you to provide R code in your response. Do not include the `library` command at any time for any of your code. Instead, assume in all questions that all relevant packages have been loaded in R. A list of R packages that Dr. Love used in building the Quiz and its answer sketch is available in the next section.

Packages and Settings used by Dr. Love

This doesn't mean that I used all of these packages (I did not), or that you need to use all of these packages, nor does it mean that you are prevented from using other packages we've discussed in class to complete the Quiz, but all of the packages that I did use in writing the Quiz and its answer sketch are listed below.

```
knitr::opts_chunk$set(comment = NA)

library(bestglm)
library(broom)
library(caret)
library(Epi)
library(glue)
library(gt)
library(janitor)
library(MASS)
library(mosaic)
library(naniar)
library(patchwork)
library(pROC)
library(rms)
library(rsample)
library(simputation)
library(survey)
library(tidyverse)

theme_set(theme_bw())
options(dplyr.summarise.inform = FALSE)
```

The rest of the main document will appear at 5 PM Thursday 2024-02-22.