

Quiz 3 — Sample 1

DATA 412/612

Cumulative through December 2 (weeks 1–13). The new material is R Markdown presentations, chunk options, tables, and citations.

Write your answers in an R script or a short `.Rmd`. You may use R and RStudio. You may **not** use the internet or your notes. You do not have to knit. Write the YAML, the chunk headers, and the code you would put in the file.

1. Write a minimal YAML header for an ioslides presentation titled **Delay notes**, with you as the author. Under it, write the markdown for two slides after the title slide. Each slide has a title and one sentence. Say which heading level starts a slide in ioslides.
2. You need three chunks:
 - a setup chunk that loads the tidyverse and is not printed;
 - a chunk that shows both the code and a `knitr::kable()` table of `mpg` summarized to the median `hwy` by `class`, with the caption **Median highway mileage**;
 - a plot chunk whose code is hidden, whose messages are hidden, and whose figure still appears.

Write the chunk options for each. Set the shared defaults in the setup chunk with `knitr::opts_chunk$set()`, and override them only where a chunk differs.

3. Point the document at a bibliography file `refs.bib`. In the body, cite the key `wickham2017r4ds` in parentheses, and end the file with a **References** heading so the entry is printed.
4. Still in that document, add a chunk with `echo = TRUE` that runs a two-sample `t.test()` of `hwy` for `drv "f"` against `drv "r"` in `mpg`. State the null hypothesis in one sentence under the chunk.