

Quiz 3 — Sample 2

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.

1. For each goal, name the output format from this course and write the YAML **output** (or Quarto **format**) line you would use.
 - HTML slides you can open in a browser.
 - A PDF slide deck that needs LaTeX.
 - A file someone else will click through in PowerPoint.

For the HTML choice, say what marks the start of a new slide. If you choose xaringan instead of ioslides, say that slides are separated by a line that contains only `--`.

2. Match each goal to one of `eval = FALSE`, `echo = FALSE`, or `include = FALSE`.
 - The reader must see the code, and R must not run it.
 - R must run the chunk, and the reader must see the plot but not the code.
 - R must load the packages, and the reader must see nothing from that chunk.
3. Write a Quarto plot chunk labeled `fig-hwy` that draws highway mileage against engine size for `mpg`, with the caption **Highway mileage and engine size**. In the next paragraph, refer to that figure with a Quarto cross-reference. Then write the bookdown equivalent: the chunk option `fig.cap` and the `\@ref` call, for a chunk labeled `hwy`.
4. In `mpg`, reorder `class` by median `hwy` and make a boxplot of `hwy` by that factor. Put the plot in a chunk that has a caption, and send a one-row count of the reordered levels to `knitr::kable()` with a caption. The count table should be visible. The plot code should not.