Introduction to R Markdown

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Problem Set 1

- Problem Set 1 is due next Tuesday, February 7, by 12:29PM PT.

- Reminder: You can think through and discuss problem in small groups (of 2-3), but (a) you must write your own answers and code, and (b) you must specify whom you worked with.

- Submit your assignment on our bCourses site. Your submission should include both:
  1. Your R Markdown (`.Rmd`) file
  2. Either an `.html` or `.pdf` output

- You should not use any R packages or functionalities beyond what is already included in "base" R.

- Code efficiency and elegance will not be key factors in grading, with limited exceptions...
  - if code is so disorganized it is difficult for teaching staff to understand it
  - if code is so inefficient that it is essentially implementing manual processes

R vs. RStudio vs. R Markdown

- R: a programming language and software environment for statistical computing and graphics

- RStudio: an integrated development environment (IDE) for R, providing facilities and features to enhance your ability to program and execute analyses in R

- R Markdown: a file format that allows you to create well-formatted documents embedding code chunks and analyses executed in R

R Markdown

- R Markdown: a file format that allows you to create well-formatted documents embedding code chunks and analyses executed in R

    – useful for creating high quality documents, reports, presentations, and content for websites, as well as to output and more easily inspect results and analyses from data science projects

    – requires following specialized conventions in how you write and organize your R Markdown files, some of which is a bit somewhat idiosyncratic but quick to learn

    – if using RStudio, rendering R Markdown files into beautiful final documents is as easy as clicking a button

    – requires installing the rmarkdown and knitr packages, i.e. in R, run:
    install.packages("rmarkdown"); install.packages("knitr")

    – for more information, see:
    http://rmarkdown.rstudio.com

To RStudio!