Installing and Using `tinytex`

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1 Background

We will use RStudio to create `.Rmd` files that contain our writing and our analysis in one file. We will compile (or "knit") these `.Rmd` files into `.pdf` files so that we can print them and upload them in an easy-to-read, portable format. The R package `tinytex` will help us configure some code that sits in the background and performs this compilation from `.Rmd` to `.pdf`. After this initial installation, we will not need to invoke `tinytex` directly.

2 Procedure

Here are the steps for compiling directly to PDF. Open R and run

1. `install.packages("rmarkdown")`
2. `install.packages("tinytex")`
3. `library(rmarkdown)`
4. `tinytex::install_tinytex()`

   This step will take a couple minutes. Pay attention to any warnings/notices that arise, including those at the R prompt.

Now, restart RStudio (not just R, but the full RStudio).

Suppose you have a file called `my_ps_solutions.Rmd` that you want to compile. To compile it, use the "Knit to PDF" option under the RStudio - Knit button.

To view your file, open the created `my_ps_solutions.pdf` in whatever you use to view PDFs (Preview, Acrobat, Skim, etc.)

To compile your file, you actually have several options:

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- Use the "Knit to PDF" option under the RStudio - Knit button
- Use the "Knit" button directly if your `.Rmd` file says `pdf_document` in the header instead of `html_document` (or if `pdf_document` is listed first)
- At the R prompt, run

  ```
  rmarkdown::render("my_ps_solutions.Rmd", "pdf_document")
  ```

- At the R prompt, run

  ```
  rmarkdown::render("my_ps_solutions.Rmd")
  ```

  if your `.Rmd` file says `pdf_document` in the header instead of (or above) `html_document`