Tools for Reproducible Research
Week 2 Homework

1. If you weren't able to get the last problem (on GNU Make) from last week's homework to work, try again this week.

2. Try out `curl`, `wc`, `grep`, and pipes.

   (a) Use `curl` to download the baby names data from the Social Security Administration.
   ```
   curl -O http://www.ssa.gov/oact/babynames/names.zip
   ```

   (b) Check that the file looks okay.
   ```
   unzip -t names.zip
   ```

   (c) Unzip the files into a `names/` subdirectory.
   ```
   unzip names.zip -d names
   ```

   (d) How many `.txt` files are there?

   (e) How many total lines are in those `.txt` files?

   (f) Across all of the files, how many lines contain the name "Pat"?

   (g) How many contain the name "Pat" as a boy? As a girl?

3. The following R script performs an exhaustive permutation test and then plots the results. It'll take a few minutes to run.

   kbroman.org/assets/homework/02_homework.R

   Try running it from the command line, in the background.

   ```
   curl -O http://kbroman.org/assets/homework/02_homework.R
   R CMD BATCH 02_homework.R &
   ```