STAT XXX HW 1

Your Name Here

2021-12-30

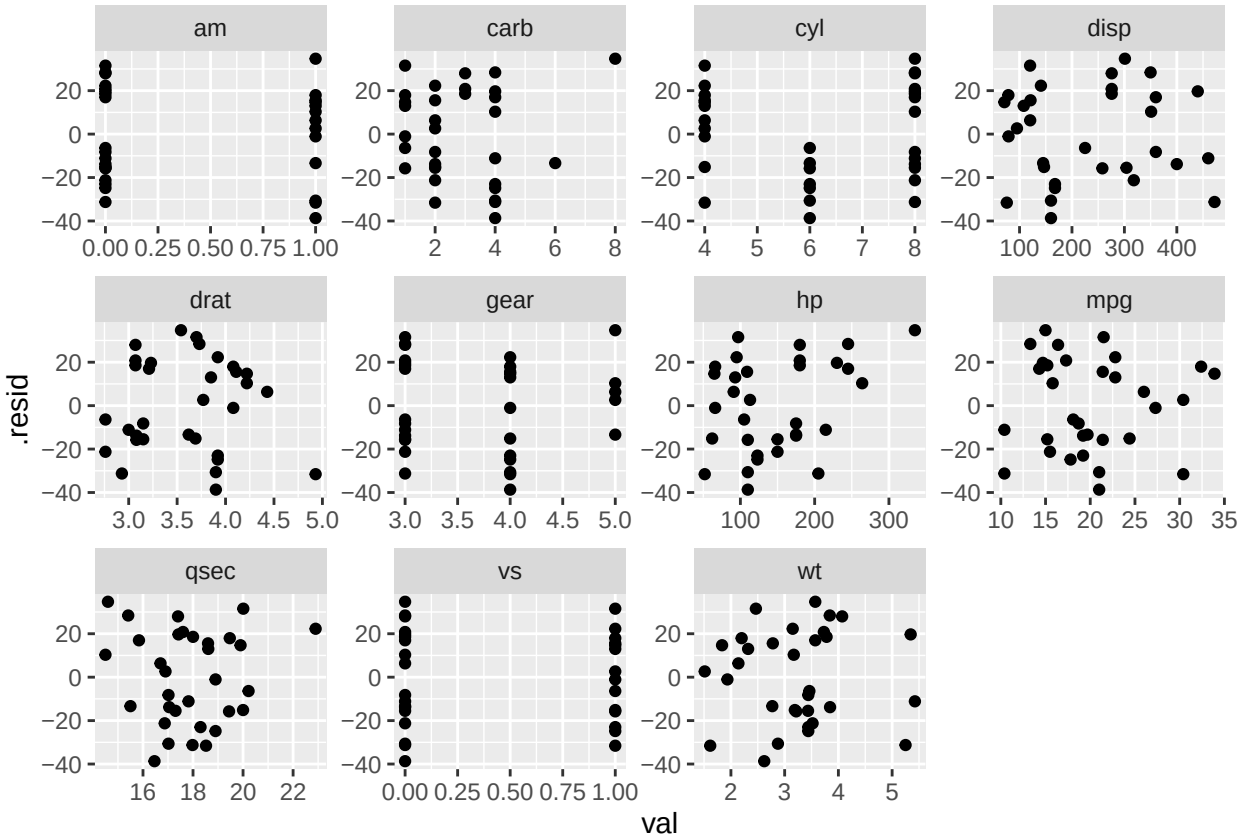
Notes on the YAML header

- Be sure to change the title and author fields
- The date is automatically set to the current day when knitting
- The `header-includes` portion loads a personal sheet of LaTeX macros. I recommend making one of these as well as it can greatly speed up the time to input math. See my personal macro file `hayesmacros.sty` as a starting point. If you aren't going to load a LaTeXmacro file, remove those lines.
  - `hayesmacros.sty` needs to be in the same folder as this file

Problem 1

Here is a link. Your homework goes here.

Briefly, some of the custom latex macros: $y = \beta x + \epsilon$. Also, some code:



Yet more text, and another code section:

.rownames	hp	mpg	cyl	disp
Mazda RX4	110	21.0	6	160
Mazda RX4 Wag	110	21.0	6	160
Datsun 710	93	22.8	4	108
Hornet 4 Drive	110	21.4	6	258
Hornet Sportabout	175	18.7	8	360
Valiant	105	18.1	6	225

Code

```
knitr::opts_chunk$set(
  echo = FALSE,                 # don't show code
  warning = FALSE,              # don't show warnings
  message = FALSE,              # don't show messages (less serious warnings)
  cache = FALSE,                # set to TRUE to save results from last compilation
  fig.align = "center",         # center figures
  attr.source = '.numberLines'  # add line numbers to code
)

library(tidyverse)       # load libraries you always use here

set.seed(27)             # make random results reproducible
fit <- lm(hp ~ ., mtcars)
au <- broom::augment(fit)

au %>%
  gather(x, val, -contains(".")) %>%
  ggplot(aes(val, .resid)) +
  geom_point() +
  facet_wrap(~x, scales = "free")
knitr::kable(head(select(au, 1:5)))
# this R markdown chunk generates a code appendix
```