

Homework 10  
MTH 3240, Spring 2020

Due Fri., May 15

**Reading:** *Environmental Statistics*:

- Chapter 13 (but Sections **13.13** and **13.19** are **optional**)

**Problems:** Please do the following problems from the Problems sections of *Environmental Statistics*:

Chapter in <i>Environmental Statistics</i>	Problems
Ch. 13	13.2* (skip part <i>h</i> ), 13.3* (skip part <i>h</i> )

\* For **Problems 13.2** and **13.3**, parts *a* through *e*, you can use the `lm()` function in R.

First, read the data from the text file **Ch13Pr2and3Data.txt** into a *data frame* in R using:

```
> my.data <- read.table(file.choose(), header = TRUE)
```

Once you've created the *data frame*, you can carry out the multiple regression analysis by typing:

```
> my.reg <- lm(Smoke ~ Dist + Truck + Auto, data = my.data)
> summary(my.reg)
```

For **Problem 13.3**, replace **Smoke** above by **NO2**.

You may skip part *h*, but the estimate of  $\sigma$  is labeled the **Residual standard error** in the output from `summary()`.

For part *i*, the  $R^2$  is labeled the **Multiple R-squared** in the output from `summary()`.