Problem Sets Due Before Test 1

Only turn in problems that are **not** bracketed. Bracketed problems are additional problems you can look at. Round brackets indicate problems that may help you with problems that are assigned; square brackets are additional problems on material that you should know, but you are not required to write up solutions; curly brackets are truly optional and may contain extra nuggets that you will not be required to know but may be interested in.

Additional assignments and deadlines will be filled in over time.

notation	meaning
unbracketed	assigned problem – turn these in for grading
0	helper/warm-up problem
[]	additional problems (you are responsible for content, but don't turn them in)
{}	covers optional material

Unless marked otherwise, assignments are due at 11:59 pm Eastern on the date listed.

Date	Assignment	Section	Problems
Wed 9/1 8:45am	PS 0	*	Familiarize yourself with the course home page: https://rpruim.github.io/s145/F20/ and read the information there.
		*	Go to RStudio (follow the link on the course web page) and log in and log out again. You should be able to use your usual Calvin user name and password. (Feel free to snoop if you want, but for now I just want to make sure everyone has an account.) Contact me if you can't log in.
		IMS 1.3.6	1 cats 3 family size 8 relaxing
		IMS 1	Now go back to the list of distinctions (pairs of terms) on the Dope Sheet and answer the following questions.
			Q1 For three of the six distinctions listed there,
			(a) say as succinctly as you can what the distinction is, and
			(b) create an example that clearly illustrates the distinc- tion.
			Q2 Which distinction do you find most difficult to under- stand/explain?

Date	Assignment	Section	Problems
Mon 9/7	PS 1	IMS 1.1	$[1]$ migranes ${f 2}$ sinusitis
		IMS 1.2	[7] Buteyko $f 8$ cheaters $[9]$ stealers $[10]$ UN votes
		IMS 1.3	5 internet 7 reading the paper 8 relaxing [10] air pollution [11] Buteyko [12] cheating 13 haters
		IMS 1.4	$[4]$ music $[5]$ soda ${f 6}$ vitamins
		IMS 1.5	$\left[1 ight]$ chia seeds $\left[6 ight]$ screens $\left[8 ight]$ space ${f 9}$ police
	PS 2	**	Complete this tutorial about plotting in R. In the "More Practice" section, you are asked to create a plot an put it into this google presentation. You may work alone or in a group of 2–3, but you must submit as many plots as there are people in your group – 3 people = 3 plots. Be sure to include everyone's name on each slide you create.
Thu 9/10	PS 3A	**	Submit a PDF produced using RMarkdown following the directions in slide presentation.
	PS 3B	IMS 2.1	 2 associations 4 office productivity 5 parameters and statistics 7 days off 16 distributions and statistics 17 coffee shop [6] sleeping [11] air quality [14] facebook [19] bacteria
Mon 9/14	PS 4	IMS 2.2	$\left[1 ight]$ antibiotics in childern 2 immigration $3a$ BLM $4a$ taxes
		IMS 2.5	$egin{array}{cccc} 1 & ext{make-up exam} & 2 & ext{infant mortality} & 4 & ext{skewness} \ & & & & & & & & & & & & & & & & & & $
		Extra	1 sketches 2 penguins 3 more penguins
Thu $9/17$	PS 5	IMS 2.4	1 avandia 2 heart transplants
		IMS 3.1	(3) associations ${f 4}$ associations ${f 5}$ exams ${f 7-8}$ matching
Mon 9/21	PS 6	IMS 3.1	13 partner's ages [14] salaries
		IMS 3.2	1 units 4 over-under $[3]$ over-under
		Extra	4 smoking
			Note: The footnotes at the end of problems will often tell you where to find the data set used in the problem.

Date	Assignment	Section	Problems
Thu 9/24	PS 7	IMS 3.1	(1) residual plots $m{2}$ trends in residuals $m{9}$ shoulders and height $m{12}$ crawling babies
		IMS 3.2	${f 8}$ body measurements ${f 10}$ cats $[9]$ murders and poverty
		IMS 3.3	 1-2 outliers Note: For problems 3.3.1 and 3.3.2, answer the following: a) Is the outlier a high leverage point? b) What effect does the outlier have on the regression line? (How does it change the slope and intercept?) c) How influential is the outlier? (Does it have a large effect or a small effect on the regression line)?
		Extra	5 making scatterplots
Tue 9/29	PS 8	Moodle	This problem set is available in our Moodle course. Note the Tuesday deadline.