Statistics for Laboratory Scientists (140.615)

Homework 0

My Name

The hash and other tags can help to structure your document, see

https://rmarkdown.rstudio.com/authoring_basics.html

I also recommend to look at the IDE cheat sheet to learn about navigating the R Studio environment and the rmarkdown cheat sheet to learn how to generate and structure R markdown files. These cheat sheets are available on the class webpage, click on useful links → R resources.

The latest versions of these cheat sheets are also available within R studio, click on Help → Cheat Sheets.

Note that certain characters are reserved LaTeX / math characters and might throw an error while knitting if you include those into your text. If you copy and paste a greek character from the HW pdf into your Rmd file, it will almost certainly throw an error.

If you get an error during knitting that is not related to the TeX installation or your code, R Studio will tell you which line it occurred on. If you have a non-text character there, take it out and try again.

If you like greek and mathy characters you have to use dollar signs create a math environment that LaTeX can recognize (see for example the 'inline equation' in the reference card).

A few examples:

α, β and γ. $X_1, X_2, \ldots, X_n$. π and Π.

This is not expected in your homework and it is certainly fine to just write the character in plain text (e.g., 'alpha').

Within a code chunk only R syntax is allowed. Note that the hash tag is R syntax to indicate a comment that will be rendered as text.

Problem 1

Q: If you flip a fair coin once, what is the chance you see Heads after it lands?

A: By definition of "fair", the probability of heads is 50%.

Problem 2

Q: Calculate the sum of the numbers 2, 3, and 4.

```r
# this is my vector x
x <- c(2,3,4)
sum(x)
```

```
## [1] 9
```

The sum of these three numbers is 9.