Homework Week 1

9/4/2020

Preface

This homework **will not be graded** and should not be submitted. It is for you to try out R and experiment with some of the topics covered in the first class.

I will go over the answers at the beginning of the second class.

Work in groups!

Question 1

Evaluate this expression in R.

$$\frac{log_{10}(67000) * 92 + 36}{\sqrt{759}}$$

Round the answer to 1 decimal place

Question 2

Use the following code as a base for calculating your answer. Don't worry about understanding it right now. We'll learn it next week.

```
set.seed(42) # so everyone produces the same answer

x <- round(rnorm(20, mean = 100, sd = 10), 2) # returns vector of 20 random numbers
```

a. What is the second element of `x`?
b. What is the class and type of `x`?
c. What is the maximum value of `x`? (Use an R function!)

Question 3

Use the following code as a base for calculating your answer. Don't worry about understanding it right now. We'll learn it next week.

First, download "einstein_soro.rds" from GitHub to your R directory.

```
soro <- readRDS("einstein_soro.rds")
```

a. How many cases are in this data base?
b. How many variables are in this data base?
c. What is the class and type of `soro`?
d. What is the date of collection (`dt_collect`) of the 3rd case?
e. Print the 5th to the 10th birth years (`birth_yr`).
f. How many different cities are represented in this sample?

When you get these answers (not if . . .), you will be on your way to success in MAD!