

Week 2 Quiz

The answers to the following [11] questions should be placed in a single R script. Place your R script in a public repository on github and submitting a link to the script here. Label your answers using comments so that they can be clearly and quickly found within the script.

Week 2 quiz is due end of day on Friday September 5th. Solutions to all quiz exercises will be posted on Saturday September 6th. Your grade will be based on two randomly selected exercises.

1. Create a vector that contains 20 numbers. (You may choose whatever numbers you like, but make sure there are some duplicates.)
2. Use R to convert the vector from question 1 into a character vector.
3. Use R to convert the vector from question 1 into a vector of factors.
4. Use R to show how many levels the vector in the previous question has.
5. Use R to create a vector that takes the vector from question 1 and performs on it the formula $3x^2 - 4x + 1$.
6. Create a named list. That is, create a list with several elements that are each able to be referenced by name.
7. Create a data frame with four columns – one each character, factor (with three levels), numeric, and date. Your data frame should have at least 10 observations (rows).
8. Illustrate how to add a row with a value for the factor column that isn't already in the list of levels. (Note: You do not need to accomplish this with a single line of code.)
9. Show the code that would read in a CSV file called **temperatures.csv** from the current working directory.
10. Show the code that would read in a TSV (tab-separated) file called measurements.txt from a directory other than the working directory on your local machine.
11. Show the code that will read in a delimited file with a pipe separator (the "|" symbol) from a website location. (You may make up an appropriate URL.)