BIOS 667 Advanced Data Analysis

Submitting Homework

To show your recent commands, you can always call the `history()` function, which displays the command history. The default is

```
>history(max.show = 25, reverse = FALSE)
```

If commands are stored on an external file, say in 'commands.txt' in the working directory, they may be executed at any time in an R session with the command

```
> source('commands.txt')
```

You can create the source file either within a word processing program or you can use the history command to recall your previous R commands and copy and paste them into a word processing program.

The function `sink('output.txt')` will divert all subsequent output from the console to an external file named 'output.txt'. The command `sink()` restores it the console once again.

For example, suppose your homework assignment required that you input the following data and then calculate the mean, median, and sum of the values.

X
29
57
58
73
77
87
66
20
80
4

1.) Create a source file
(e.g., contents of 'commands.txt' are as follows:
```
x<-c(29, 57, 58, 73, 77, 87, 66, 20, 80, 4)
mean(x)
median(x)
sum(x)
 )
```
2.) Create a sink file
3.) Check that the output in sink file is correct.
4.) Submit your source and sink files via e-mail to be graded.

```
> sink('output.txt')
> source("commands.txt",echo=TRUE)
```

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```
> sink()
```

Open 'output.txt' in your favorite word processor. It should look like this:

```
> x <- c(29, 57, 58, 73, 77, 87, 66, 20, 80, 4)

> mean(x)
[1] 55.1

> median(x)
[1] 62

> sum(x)
[1] 551
```

If you are satisfied with your commands and output, submit for a grade. E-mail the file(s) to kjarcher@vcu.edu

Warnings:

When using `scan()` the entered values will not appear in the history.

Never include source("*lastname*hmwk*n*commands.txt") in your source file.

Please submit one source and one sink file per homework assignment using the following naming convention

*lastname*hmwk*n*commands.txt

*lastname*hmwk*n*out.txt

Be sure to comment your code so that each problem is clearly identifiable.

Problem 1a