

1: Use R to figure out how many elements in the vector below are greater than 2 and then tell me what their sum (of the larger than 2 elements) is.

```
rooms <- c(1, 2, 4, 5, 1, 3, 1, NA, 3, 1, 3, 2, 1, NA, 1, 8, 3, 1, 4, NA, 1, 3, 1, 2, 1, 7, 1, 9, 3, NA)
```

```
#QUESTION 1
```

```
rooms <- c(1, 2, 4, 5, 1, 3, 1, NA, 3, 1, 3, 2, 1, NA, 1, 8, 3, 1, 4, NA, 1, 3, 1, 2, 1, 7, 1, 9, 3, NA)
```

```
#eliminate missing values and save it in the variable clean_rooms
```

```
na.omit(rooms)
```

```
clean_rooms <- rooms[!is.na(rooms)]
```

```
#find the elements in the vector clean_rooms that are greater than 2
```

```
bigger_than2 <- clean_rooms[clean_rooms>2]
```

```
#find the sum of elements greater than 2
```

```
sum(bigger_than2)
```

2: What type of data is in the 'rooms' vector?

```
#QUESTION 2
```

```
class(rooms) # "numeric"
```

3: Submit the following image to Github: Inside your R Project (.Rproj), install the 'tidyverse' package and use the download.file() and read_csv() function to read the SAFI_clean.csv dataset into your R project as 'interviews' digital object (see instructions in <https://datacarpentry.org/r-socialsci/setup.html> and 'Starting with Data' section). Take a screenshot of your RStudio interface showing

a) the line of code you used to create the object,

b) the 'interviews' object in the Environment, and

c) the file structure of your R project in the bottom right "Files" pane.

W35: Start with R

The screenshot displays the RStudio interface with the following components:

- Source Editor:** Contains R code for data manipulation and analysis.
- Environment:** Shows the 'Data' environment with a list of variables and their values.
- Files:** A file explorer showing the project structure.
- Console:** Displays the output of the R code, including a tibble of data.

R Code (Source Editor):

```
1 #QUESTION 1
2 rooms <- c(1, 2, 4, 5, 1, 3, 1, NA, 3, 1, 3, 2, 1, NA, 1, 8, 3, 1, 4, NA, 1, 3, 1, 2, 1, 7, 1, 9, 3, NA)
3
4 #eliminate missing values and save it in the variable clean_rooms
5 na.omit(rooms)
6 clean_rooms <- rooms[!is.na(rooms)]
7
8 #find the elements in the vector clean_rooms that are greater than 2
9 bigger_than2 <- clean_rooms[clean_rooms>2]
10
11 #find the sum of elements greater than 2
12 sum(bigger_than2)
13
14 #QUESTION 2
15 class(rooms)
16
17 #QUESTION 3
18
19 #install tidyverse
20 install.packages("tidyverse")
21 library(tidyverse)
22
23
24 #download and read the csv file and save it in the variable interviews
25 download.file("https://download.figshare.com/files/11492171", "data/SAFI_clean.csv", mode = "wb")
26 interviews <- read_csv("data/SAFI_clean.csv", na = "Null") #na = "" tells how R should read missing data
27
28 #use to show the interview object
29 head(interviews)
30
31
```

Environment:

| Variable | Value |
|--------------|-------------------------------------|
| interviews | 131 obs. of 14 variables |
| bigger_than2 | num [1:12] 4 5 3 3 3 8 3 4 3 7 ... |
| clean_rooms | num [1:26] 1 2 4 5 1 3 1 3 1 3 ... |
| room | num [1:30] 1 2 4 5 1 3 1 NA 3 1 ... |
| rooms | num [1:30] 1 2 4 5 1 3 1 NA 3 1 ... |

Files:

| Name | Size | Modified |
|----------------|--------|-----------------------|
| History | 0 B | Oct 5, 2022, 11:29 AM |
| CDS1.Rproj | 218 B | Oct 5, 2022, 5:06 PM |
| data | | |
| figures | | |
| firstproject.R | 5.1 KB | Oct 5, 2022, 11:29 AM |
| output | | |

Console:

```
# A tibble: 6 x 14
key_ID village interview_date no_mem.' years.' respo.' rooms memb_.' affec.' liv_c.' items.' no_me.' month.' insta.'
<dbl> <chr> <dtm> <dbl> <dbl> <chr> <dbl> <chr> <dbl> <chr> <dbl> <chr> <chr>
1 1 God 2016-11-17 00:00:00 3 4 muddaub 1 NULL NULL 1 bicycl 2 Jan uid:0.
2 1 God 2016-11-17 00:00:00 7 9 muddaub 1 yes once 3 cow_ca 2 Jan;Se uid:0.
3 3 God 2016-11-17 00:00:00 10 15 burntb. 1 NULL NULL 1 solar 2 Jan;Pe uid:1.
4 4 God 2016-11-17 00:00:00 7 6 burntb. 1 NULL NULL 2 bicycl 2 Sept;O uid:1.
5 5 God 2016-11-17 00:00:00 7 40 burntb. 1 NULL NULL 4 motorc 2 Aug;Se uid:2.
6 6 God 2016-11-17 00:00:00 3 3 muddaub 1 NULL NULL 1 NULL 2 Aug;Se uid:d.

# - with abbreviated variable names 'no_members', 'years_liv', 'respondent_wall_type', 'memb_assoc', 'affect_conflicts',
# 'liv_count', 'items_owned', 'no_meals', 'months_lack_food', 'instanceID'
> ?class
> #QUESTION 2
> class(rooms)
[1] "numeric"
>
```