

Assignment 1 Spring 2019

Part A

Write your own functions to do the following:

```
milesTokm <- function(distInmiles) {  
  compute distance in kilometers  
  return distance  
}
```

```
inchesTocm <- function(distIninches) {  
  compute distance in centimeters  
  return distance  
}
```

The output should look like the following:

If milesTokm is called as milesTokm(12) your program should print out
12 miles is 19.31 kilometers

If inchesTocm is called as inchesTocm(50.5) your program should print out
50.5 inches is 128.27 centimeters

Note that all responses are rounded to two decimal places.

Name your file as A01a_Gwid.R. So if your GWID is G19860011 then you should name your submission file as A01a_G19860011.R. Please make sure that you comment your R code.

Part B

Import cities.csv from <https://s3.amazonaws.com/programmingforanalytics/cities.csv> into a data frame called mycities.

As you can see, the entry for Washington currently has two NA values. Please insert 0.7 for population and F for coastal.

Next, create a new column called state and populate the column with the abbreviated state names for each city (e.g., NY for New York, CA for Los Angeles, etc.). Lastly, write the data frame to a csv file called mycities.csv.

Name your file as A01b_Gwid.R. So if your GWID is G19860011 then you should name your submission file as A01b_G19860011.R. Please make sure that you comment your R code.

Part C

Your task is to write a function called `myFriends` that takes three inputs: name, height in inches, and distance in miles. You should use the functions `inchesToCm` and `milesToKm` from part A to build `myFriends`.

If `myFriends()` is called as

`myFriends(John, 70, 1.5)` your program should print out

My friend John is 177.8 centimeters tall and walked 2.4 kilometers

Note that all responses are rounded to one decimal place.

Name your file as `A01c_Gwid.R`. So if your GWID is G19860011 then you should name your submission file as `A01c_G19860011.R`. Please make sure that you comment your R code.

NOTE: Please submit one zip file to Blackboard that contains `A01a_Gwid.R`, `A01b_Gwid.R` and `A01c_Gwid.R`. So if your GWID is G19860011 then you should name your submission zip file as `A01_G19860011.zip`.