

Week 3 Quiz

NOTE DE LA SOUMISSION LA PLUS RÉCENTE

100%

1. Take a look at the 'iris' dataset that comes with R. The data can be loaded with the code:

1 / 1 point

```
1 library(datasets)
2 data(iris)
```

A description of the dataset can be found by running

```
1 ?iris
```

There will be an object called 'iris' in your workspace. In this dataset, what is the mean of 'Sepal.Length' for the species *virginica*? Please round your answer to the nearest whole number.

(Only enter the numeric result and nothing else.)

7

Correct

To get the answer here, you can use 'apply' to calculate the mean of 'Sepal.Length' within each species.

2. Continuing with the 'iris' dataset from the previous Question, what R code returns a vector of the means of the variables 'Sepal.Length', 'Sepal.Width', 'Petal.Length', and 'Petal.Width'?

1 / 1 point

- ☐ rowMeans(iris[, 1:4])
- ☐ colMeans(iris)
- ☐ apply(iris, 2, mean)
- ☐ apply(iris, 1, mean)
- ☐ apply(iris[, 1:4], 1, mean)
- ☒ apply(iris[, 1:4], 2, mean)

Correct

3. Load the 'mtcars' dataset in R with the following code

1 / 1 point

```
1 library(datasets)
2 data(mtcars)
```

There will be an object named 'mtcars' in your workspace. You can find some information about the dataset by running

```
1 ?mtcars
```

How can one calculate the average miles per gallon (mpg) by number of cylinders in the car (cyl)? Select all that apply.

- ☐ apply(mtcars, 2, mean)
- ☒ tapply(mtcars\$mpg, mtcars\$cyl, mean)

Correct

- ☒ with(mtcars, tapply(mpg, cyl, mean))

Correct

- ☐ tapply(mtcars\$cyl, mtcars\$mpg, mean)
- ☐ lapply(mtcars, mean)
- ☐ mean(mtcars\$mpg, mtcars\$cyl)
- ☒ sapply(split(mtcars\$mpg, mtcars\$cyl), mean)

Correct

- ☐ sapply(mtcars, cyl, mean)
- ☐ split(mtcars, mtcars\$cyl)

4. Continuing with the 'mtcars' dataset from the previous Question, what is the absolute difference between the average horsepower of 4-cylinder cars and the average horsepower of 8-cylinder cars?

1 / 1 point

(Please round your final answer to the nearest whole number. Only enter the numeric result and nothing else.)

127

Correct

5. If you run

1 / 1 point

```
1 debug(1x)
```

what happens when you next call the '1x' function?

- ☐ You will be prompted to specify at which line of the function you would like to suspend execution and enter the browser.
- ☒ Execution of '1x' will suspend at the beginning of the function and you will be in the browser.
- ☐ The '1x' function will execute as usual.
- ☐ The '1x' function will return an error.

Correct