



Week 3 Quiz

5 questions

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1.

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

```
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.)

Enter answer here

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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'?

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

- ☐ `apply(iris, 1, mean)`
 - ☐ `rowMeans(iris[, 1:4])`
 - ☐ `apply(iris[, 1:4], 1, mean)`
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3.

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

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

There will be an object names '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.

- ☐ `lapply(mtcars, mean)`
 - ☐ `tapply(mtcars$cyl, mtcars$mpg, mean)`
 - ☐ `sapply(split(mtcars$mpg, mtcars$cyl), mean)`
 - ☐ `apply(mtcars, 2, mean)`
 - ☐ `tapply(mtcars$mpg, mtcars$cyl, mean)`
 - ☐ `split(mtcars, mtcars$cyl)`
 - ☐ `sapply(mtcars, cyl, mean)`
 - ☐ `with(mtcars, tapply(mpg, cyl, mean))`
 - ☐ `mean(mtcars$mpg, mtcars$cyl)`
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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?

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

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5.

If you run

```
1 debug(ls)
```

what happens when you next call the 'ls' function?

- ☐ You will be prompted to specify at which line of the function you would like to suspend execution and enter the browser.
- ☐ The 'ls' function will return an error.
- ☐ Execution of the 'ls' function will suspend at the 4th line of the function and you will be in the browser.
- ☐ Execution of 'ls' will suspend at the beginning of the function and you will be in the browser.

4 questions unanswered

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