


**Microsoft: DAT209x Programming in R for Data Science**


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Quiz due Jun 27, 2016 at 23:30 UTC 

Lab

Lab due Jun 27, 2016 at 23:30 UTC 

4. Working with Vectors and Matrices > Lab > Lab

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You are creating a list with 100, 4 by 4 matrices, with the following command:

```
set.seed(9852)
my.data<-list()
for(i in 1:100){
  my.data[[i]]<-matrix(rnorm(16),nrow=4)
}
```

Question 1

(1/1 point)

Create a list my.index with 100 4 by 4 matrices with logical entries, that indicates whether the content of my.data is negative.

```
my.index<-list()
for(i in 1:100){
  ....
}
```

Select the option to replace to perform the task.

- ☐ `my.index[i,<-(my.data[i]<0)`
- ☐ `my.index[,i]<-(my.data[i]<0)`
- ☒ `my.index[[i]]<-(my.data[[i]]<0)` ✓
- ☐ `my.index[i]<-(my.data[i]<0)`

Question 2

(1/1 point)

Create a 4 by 4 matrix `my.negatives`, where each element contains the count for how often the corresponding element in `my.index` is negative.

Display `my.negatives`.

```
my.negatives<-matrix(rep(0,16),nrow=4)
for(i in 1:100){
  ....
}
my.negatives
```

Select the option to replace to perform the task.

- ☐ my.negatives<-my.index[[i]]
- ☒ my.negatives<-my.negatives+my.index[[i]] ✓
- ☐ my.negatives<-my.index[,i]
- ☐ my.negatives<-my.negatives+my.index[i,]

Question 3

(1/1 point)

How many negative values do you have in total?

☐ 79☐ 92☒ 792 ✓☐ 972

Question 4

(1/1 point)

Use `my.index` to extract a vector `my.negative.values` with all the negative content of `my.data`.

```
my.negative.values<-numeric(0)
for(i in 1:100){
  ....
}
```

Select the option that replace to perform the task.

- ☐ `my.negative.values<-c(my.negative.values,my.data[i][my.index[i]])`
- ☐ `my.negative.values<-c(my.negative.values,my.data[[i]][my.index[i]])`
- ☐ `my.negative.values<-c(my.negative.values,my.data[i][my.index[[i]])]`
- ☒ `my.negative.values<-c(my.negative.values,my.data[[i]][my.index[[i]])]` ✓

Question 5

(1/1 point)

Display a summary of `my.negative.values` with the `summary()` function.

What is the 1st quartile of `my.negative.values`?

- ☒ -1.15500 ✓

☐ -0.66450

☐ -0.80470

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