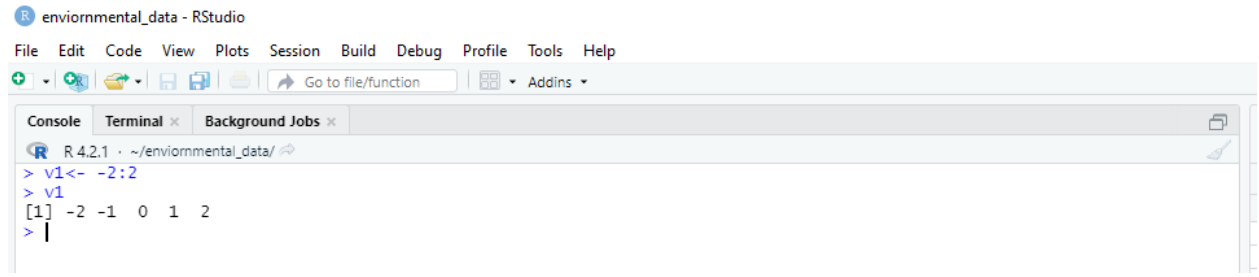
Jessica Martinez **Lecture Assignment: DataCamp: Intro to R**

Variables

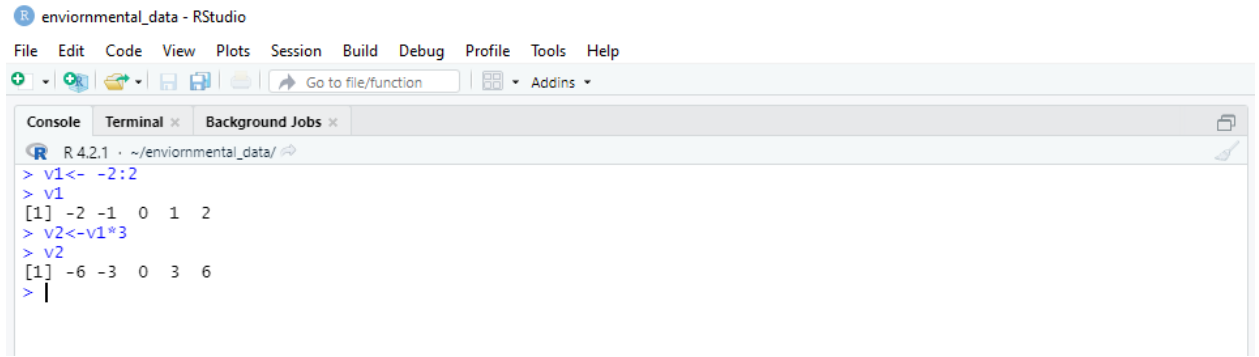
1. Character
2. Numeric
3. Character
4. It would return an error ("non-numeric argument to binary operator",) because you can't add two different data types.
5. Variables b1 and c1 are not the same data types. Because it is a decimal value, variable b1 is numeric while c1 is an integer because it is a whole number.
6. When you add b1 and c1, it returns: 45.6, 46.6, 46.6, 48.6. This means that the code adds the variable b1 to each integer within the sequence of variable c1. Thus, since variable c1 contains the sequence of integers from 0 to 3, variable b1 (45.6) is added to each 0, 1, 2 and 3 individually.

Vectors

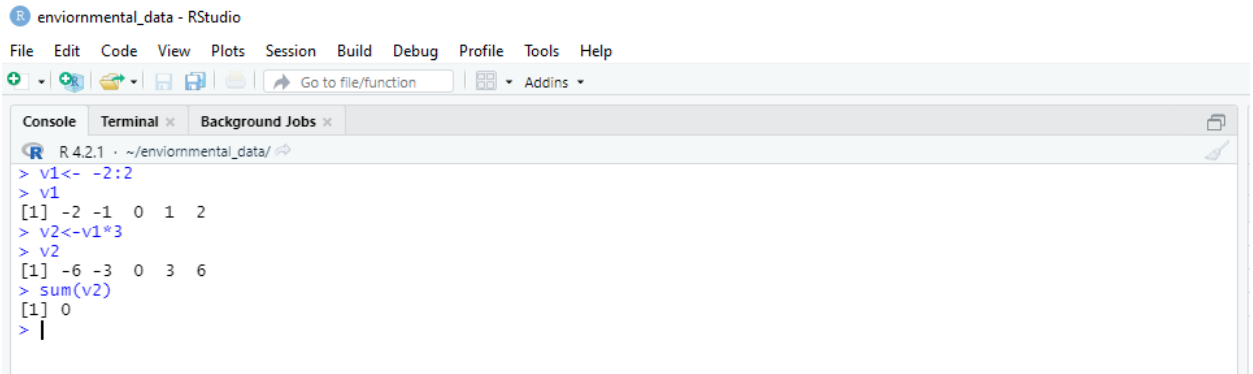
7.



8.



9.



Matrices

10.

```
> mat_1<- matrix(vec_4,byrow=TRUE,nrow=3,ncol=4)
> mat_1
     [,1] [,2] [,3] [,4]
[1,]    1    2    3    4
[2,]    5    6    7    8
[3,]    9   10   11   12
> 
```

11.

```
> mat_2<- matrix(vec_4,byrow=FALSE, nrow=3,ncol=4)
> mat_2
     [,1] [,2] [,3] [,4]
[1,]    1    4    7   10
[2,]    2    5    8   11
[3,]    3    6    9   12
> 
```

Lists

12.

```
> my_list<- list("two"=5.2, "one"="five point two", "three"=0:5)
> view(my_list)
> 
```

13.

```
> my_list[[3]]
[1] 0 1 2 3 4 5
> 
```

14.

```
> my_list$one
[1] "five point two"
> 
```

Logical Tests and Subsetting

15.

```
> my_vec=rep(1:3,5)
> my_vec
 [1] 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3
> my_bool_vec<-c(my_vec)==3
> my_bool_vec
 [1] FALSE FALSE  TRUE FALSE FALSE  TRUE FALSE FALSE  TRUE FALSE
[11] FALSE  TRUE FALSE FALSE  TRUE
> data.frame(my_vec,my_bool_vec)
   my_vec my_bool_vec
1       1       FALSE
2       2       FALSE
3       3        TRUE
4       1       FALSE
5       2       FALSE
6       3        TRUE
7       1       FALSE
8       2       FALSE
9       3        TRUE
10      1       FALSE
11      2       FALSE
12      3        TRUE
13      1       FALSE
14      2       FALSE
15      3        TRUE
>
```

16.

```
> my_vec[my_bool_vec==TRUE]
[1] 3 3 3 3 3
>
```