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Analysis of Environmental Data Lecture
DataCamp Assignment: Intro to R
September 12, 2021
Worked with: Juliana Berube and Andrew Gordon

1. (1pt): What type of data is contained in the variable a

Character variable

2. (1pt): What type of data is contained in the variable b1

Numeric variable

3. (1pt): What type of data is contained in the variable b2

Character variable

4. (2pt): What happens when you add b1 and b2 and why?

An error message will appear because R cannot add a numeric and character variable.

5. (1pt): Are the variables b1 and c1 of the same type?

Yes, b1 is a numeric variable and c1 is an integer. All integers are numeric variables.

6. (3pt): Explain what happens when you add b1 and c1. Consider both the number of elements in each variable and the data types.

It adds the b1 value (45.6) to each of the c1 values (0, 1, 2, and 3).

7. (1pt): Show the R code you used to create v1.

```
v1 <- c(-2,-1,0,1,2)
```

8. (1pt): Show the R code you used to create v2.

```
v2 <- v1 * 3
```

9. (1pt): Show the R code you used to calculate the sum of elements in v2.

```
sum(v2)
```

10. (1 pt) Show the code you used to create mat_1

```
vec_4 <- c(1:12)

mat_1 <- matrix(vec_4, nrow = 3, ncol = 4, byrow = TRUE)
```

11. (1 pt) Show the code you used to create mat_2

```
mat_2 <- matrix(vec_4, nrow = 3, ncol = 4, byrow = FALSE)
```

12. (2 pts): Show the R code you used to create my_list_1.

```
my_list_1 <- list(5.2, "five point two", 0:5)

names(my_list_1) <- c("two", "one", "three")
```

13. (1pt): Show the R code that would select third element of the list.

```
my_list_1[3]
```

14. (1pt): Show the R code that selects the list element with the name “one”. Note: there are at least two ways to do this!

```
my_list_1$one
```

15. (3 pts.) Show the R code that you used to create my_bool_vec.

```
my_bool_vec <- my_vec == 3
```

16. (2 pts.) Show the R code that you used to perform the subsetting.

```
my_vec[my_bool_vec]
```