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DataCamp: Intro to R

Q1 (1 pt.): What type of data is contained in the variable a?

Variable a contains data as text values or strings called characters.

Q2 (1 pt.): What type of data is contained in the variable b1?

Variable b1 contains data as decimal values called numerics.

Q3 (1 pt.): What type of data is contained in the variable b2?

Variable b2 contains data within quotations marks, indicating it is a string of text and not meant to be interpreted for meaning.

Q4 (2 pts.): Explain what happens when you try to add b1 and b2 and why.

You can't add b1 and b2 because they aren't the same data type, you would be trying to assign addition of numerics and characters which isn't possible.

Q5 (1 pt.): Are the variables b1 and c1 the same type? Why or why not?

Variables b1 and c1 are not the same type because variable b1 is a numeric variable and c1 is a sequence of integers, making it a vector.

Q6 (3 pts.): Explain what happens when you add b1 and c1. Consider both the number of elements in each variable and the data types.

Adding b1 and c1 means that you are adding across as an element-wise sum. So, you would end up with c(45.6, 46.6, 47.6, 48.6).

Q7 (1 pt.): Show the R code you used to create v1.

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

Q8 (1 pt.): Show the R code you used to create v2.

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

Q9 (1 pt.): Show the R code you used to calculate the sum of elements in v2.

```
sum(v2)
```

Q10 (1 pt.): Show the code you used to create mat_1.

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

Q11 (1 pt.): Show the code you used to create mat_2.

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

Q12 (2 pts.): Show the R code you used to create my_list_1.

```
v3 <- c(0:5)

my_list_1 <- list("two" = 5.2, "one" = "five point two","three" = v3)

my_list_1
```

Q13 (1 pt.): Show valid R code that selects the third element of the list.

```
my_list_1[[3]]
```

Q14 (1 pt.): 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"
my_list_1[["one"]]
```

Q15 (3 pts.): Show the R code that you used to create my_bool_vec.

```
my_bool_vec <-  my_vec > 2
```

Q16 (2 pts.): Show the R code that you used to subset my_vec using my_bool_vec.

```
my_vec[my_bool_vec == TRUE]
```