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ECO 602

9/9/2022

**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]