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Eco 602: Michael France Nelson

DataCamp: Intro to R

Variables: Q1-Q6

Code:

> a <- "Kaitlyn"

> b1 <- 45.6

> b2 <- "45.6"

> c1 <- c(0:3)

> b1 + b2

Error in b1 + b2 : non-numeric argument to binary operator

> b1 + c1

[1] 45.6 46.6 47.6 48.6

1. Variable “a” contains characters.
2. Variable “b1” contains numeric data.
3. Variable “b2” contains characters.
4. There is an error when you add variables b1 + b2. This happens because they are different data types, so when you try to add them together, they are incompatible. Even though “b2” is a number, R perceives it as a character because of the coding language used.
5. Yes and no, variable c1 is the same type as b1 (numeric); however, variable b1 is not the same type as c1 because 45.6 is not an integer since it has a decimal point. Since c1 is a vector that contains whole numbers, the data type is integers. Integers are also numerics, but numerics are not integers.
6. When you add b1 and c1, R produces four sums. B1 is a single value, and c1 is a vector that holds four numeric values, so B1 is added to each of the four values separately.

Vectors Q7-Q9

1. v1 <- c(-2, -1, 0, 1, 2)
2. v2 <- v1 \* 3
3. sum(v2)

Matrices Q10-Q11

1. mat\_1 <- matrix(vec\_4, byrow = TRUE, nrow = 3)
2. mat\_2 <- matrix(vec\_4, byrow = FALSE, nrow = 3)

Lists Q12-Q14

1. my\_list\_1 <- list(5.2, "five point two", 0:5)
2. my\_list\_1[[3]]
3. my\_list\_1$"one"

Logical Tests and Subsetting Q15-Q16

1. my\_bool\_vec <- my\_vec == 3
2. my\_vec[my\_bool\_vec]