

Ednita Tavaréz-Jiménez

ECO - 602

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Data Camp: Intro to R

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

Variable a contains a string of text with my initials. `a <- "ET"`

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

Variable b1 contains the numeric value of 45.6. R sees b1 as an expression to be evaluated.

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

Variable b2 contains a string of text with the number "45.6".

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

An error appears because b1 is a numeric expression & b2 is a text. Since they are different variables you can not add them together.

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

b1 & c1 are the same type because they are both considered numeric values.

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 & c1 gives you a numeric value of 45.6, 46.6, 47.6, and 48.6. It looks like b1 was added by the 3 factors of c1.

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

```
v1 <- c(-2:2)
```

```
v1
```

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

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

```
v2
```

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.

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

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

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

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

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

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

```
my_list_1 <- list(two = 5.2, one = "5.2", three = 0:5)
```

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

```
my_list_1$three
```

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
```

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

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

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

```
my_vec[my_bool_vec]
```