

Exercises-1: Intro to R - Lists

Nathan Green, Imperial College London

07/09/2019

1. If

```
p <- c(2,7,8), q <- c("A", "B", "C")  
x <- list(p, q)
```

then what is the value of `x[2]`?

- a. `NULL`
- b. `"A" "B" "C"`
- c. `"7"`

2. If

```
w <- c(2, 7, 8)  
v <- c("A", "B", "C")  
x <- list(w, v)
```

then which R statement will replace “A” in `x` with “K”?

- a. `x[[2]] <- "K"`
- b. `x[[2]][1] <- "K"`
- c. `x[[1]][2] <- "K"`

3. If `a <- list ("x"=5, "y"=10, "z"=15)`, which R statement will give the sum of all elements in `a`?

- a. `sum(a)`
- b. `sum(list(a))`
- c. `sum(unlist(a))`

4. If `Newlist <- list(a=1:10, b="Good morning", c="Hi")`, write an R statement that will add 1 to each element of the first vector in `Newlist`.

5. If `b <- list(a=1:10, c="Hello", d="AA")`, write an R expression that will give all elements, except the second, of the first vector of `b`.

6. Let `x <- list(a=5:10, c="Hello", d="AA")`, write an R statement to add a new item `z = "NewItem"` to the list `x`.

7. Consider `y <- list("a", "b", "c")`, write an R statement that will assign new names “one”, “two” and “three” to the elements of `y`.

8. If `x <- list(y=1:10, t="Hello", f="TT", r=5:20)`, write an R statement that will give the length of vector `r` of `x`.

[<https://www.r-exercises.com/2015/11/25/logical-vectors-and-operators/>]