Lecture 1.6 – Vectors in R

Specific Learning Objectives:

1.1.10 – Create vectors, arrays, matrices, lists, and data frames.

1.1.11 – Understand vectors and vectorized calculations.

1.1.12 – Learn how to index vectors, arrays, matrices, lists, and data frames.

Check Your Understanding

Write one line of code to recreate this vector and store it as the object **`boop`**

```
 [1] 1 1 1 2 2 2 3 3 3 4 4 4 5 5 5 1 1 1 2 2 2 3 3 3 4 4 4 5 5 5 1 1 1 2 2 2 3 3 3 4 4 4 5
[44] 5 5
```

Write a different line of code that reproduces this vector and store it as the object **`boop2`**

Test whether or not **`boop`** and **`boop2`** are the same using:

```
all.equal(boop, boop2)
```

Check Your Understanding

1. The vector `blippi` has 12 elements:

```
> blippi
 [1]  2  8  9 19 39  1  9  3 48 10 23 87
```

What is the correct way to positions 3, 7, and 12 in a single line of code?

a) `blippi(3,7,12)`

b) `blippi(c(3,7,12))`

c) `blippi[3,7,12]`

d) `blippi[c(3,7,12)]`

Correct answer

2. Why don't a, b, or c work? Explain why!

3. Write the code to multiply each position in `blippi` by 10.

Tips for RStudio: keyboard shortcuts

- **TAB is your friend!** The TAB key will give you suggestions based on partial function names or variables in your environment.
    - **If you struggle with spelling: TAB is your friend!**
    - **If you struggle with finding files: TAB is your friend!**
    - **If you struggle with remember function names: TAB if your friend!**
    - **If you struggle with remembering function argument options: TAB is your friend!**

- **The Up key remembers.** Use the up arrow key to scroll through the last commands entered into the console. You don't have to write it out again.

- **Run a single line with CMD + Enter (Apple)/CLT + Enter (Windows).** No need to switch to a mouse to run a single line in the editor window, just use CMD + Enter!

Action Items

1. **Complete assignment 1.7.**

2. **Read Davies Ch. 3 for next time.**