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9/15/21

Lab02

\*I worked with Andrew Gordon, Julia Vineyard, Jessica Bonin for some questions

1. `vec_2<-vec_1==3`
2. Visual inspection is a bad idea because:
  - a. `Vec_1` is too large to see all of the elements that have a value of 3
  - b. You are more likely to make a mistake or miscount values when doing a visual inspection
3. The reason the result was not the same each time is because you are creating random values each time, which may or may not sum to 3. Each time you run the code with the argument `replace=TRUE`, R is creating a new vector with new random values.
4. A logical test is the safest way to select a value 3, because R will select the correct values each time, reducing the error and effort that would be included in a subset by hand. In addition, since `replace` is true, a new random set of numbers will be generated each time the code is run making it impossible to maintain or count the same set of numbers.
5. A logical subset by hand is a bad practice because it would introduce too much potential error and time into selecting values from datasets. This becomes additionally complicated the values are randomized each time, when using large datasets that have many observations, and when sharing your code or copying it for another project because your steps will not be reproducible.
6. `for (i in 1:10) {print (paste0 ("This is loop iteration: ", (i)) ) }`
7. `for (i in 1:n){print(i)}`
8. `n=17`  
`vec_1 = sample(10, n, replace=TRUE)`  
`{print (paste0("The element of vec_1 at index ", (1:n), " is ", (vec_1) ))}`
9. `create_and_print_vec = function(n, min =1 , max =10)`  
`{vec_3=sample(min:max, n, replace = TRUE) for (i in 1:n) print (paste0("The element at index ", i, " is ", vec_3[i] ))}`