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ECO - 602
Lab 02- R fundamentals 2

Q1 (2 pts.): Show the R code you used to create vec_2

```
vec_2 <- vec_1 ==3
```

Q2 (2 pts.): Give two reasons why determining which elements in vec_1 have value 3 by visual inspection is a bad idea.

1. When I ran the code there were many values of 3
2. I didn't know where those 3 belonged.

Q3 (1 pt.): Why didn't you always get the same count of 3 entries each time?

It is random, each time it's picked from a random line.

Q4 (3 pts.): Considering the different vectors generated each time, explain why using a logical test is a safe way to select entries with a value of 3.

It is the safest way because it generates from a random set of the 10 lines it had between 1-12

Q5 (5 pts.): Explain why performing logical 'by hand' subsetting is a very very bad practice. You may want to consider the re-usability of code, working with different-sized data sets, and sharing code with collaborators.

'by hand' subsetting is very bad because 1. Using the code in large data sets wouldn't be accurate and 2. You can't reuse the code if you send it to someone.

Q6 (3 pts.): Provide the code for your modified loop. It must run as a self-contained example on a fresh R session on my computer.

```
   for (i in 1:10)
{

print(paste0("This is loop iteration:1"))
}
```

Q7 (2 pts.): Provide the code for the modified loop that executes n times. It needs to be a self-contained example. I should be able to set the value of n and then run your loop on my computer.

```
   n <- 100
for (i in 1:n)

{
  print(i)
}
```

Q8 (4 pts.): Provide the code you used to create the n, vec_1, and the loop. As always, it should run as a stand-alone example in a fresh R session on my computer.

```
n <- 17
vec_1 <- sample(1:10, n, replace = TRUE)

for (i in 1:n)

{
  print(paste0("The element of vec_1 at index ", i, " is ", i))

}
```

Q9 (10 pts.): Provide the code you used to build your function.

```
n <- 1:10

vec_3 <- sample(min:max, n, replace = TRUE)

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 vec_3 at index ", i, " is ",vec_3[i]))
}
create_and_print_vec(10, min = 100, max = 2000)
```