# Questions on Loops

Q1

given two vectors v1 and v2'

v1 <- seq(1,15,2)

v2 <- seq(2,16,2)

arrange assign to a vector such that alternative elements of v1 and v2 are stacked up

example v3 = c(1,2,3,4,5.....)

Q2

given a vector v1 create a vector v2 having the elements of v1 in forward and reverse order

input: v1 = c(1,3,7)

output: v2 = c(1,3,7,7,3,1)

Q3:

Check if the number is even or odd?

x = 26

Output: "Number is a even number"

Q4

Given a number check if the number is a prime or composite number

input : 15

output : "number is composite"

Q5:

given a number list all the prime factors of the number

input : 24

output : 2,3

Q6:

Check if the given word is a palindrome or not

Input : noon

Output: "is a palindrome"

Q5

Advanced:

convert a given integer number into binary

#Questions on functions

#Q1 :

Wrap the prime number checker into a function

#Q2:

Wrap the prime factors generator into a function and return a vector of all the prime factors

#Q3:

Write a function to searh for an element in entire data frame and return True or False if found

#Q4:

Extend the above function to get the row and column of the instance found

#Q5:

Write a function to delete every third instance in a vector and return the modefied vector

input : Vector v1

output : Modified Vector v2

#Q6:

Given a numeric v1 return sum of all the elements raised to the power of the elements positions

in reverse order

example : v1 = c(1,2,3)

Output : 8 i.e (1^3+2^2+3^1)

#Q7:

Write a function to splict string into characters

#Q7:

In a vector of strings search for a word occurance and return a vector with Found and NotFound

inputs : vector of Strings, search word

example: v1 = c("Is it True", "R is amazing","Very much")

search word : "is"

Output: c("Found","Found","Not Found")

#Q8:

Advanced:

Remove all redundant spaces if any in a vector of strings

Input : c("Hello World","I have two spaces in between" "This is correct spacing")

Output: c("Hello World","I have two spaces in between","This is correct spacing")