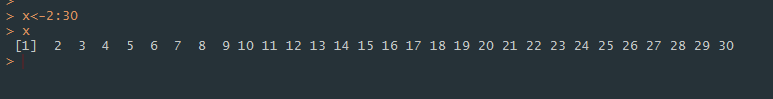
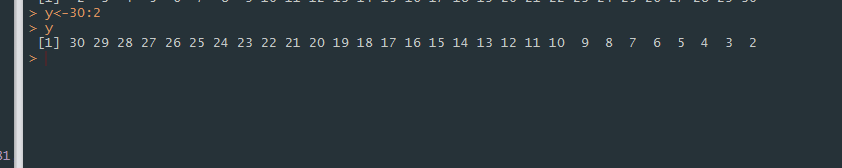
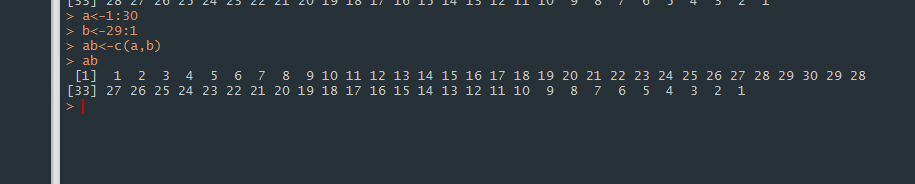
Q1- . Create the vectors

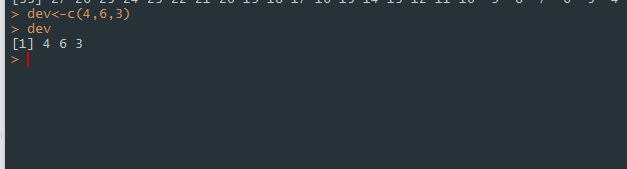
1. (2, 3, ... , 29, 30)
2. (30, 29, ... , 2)



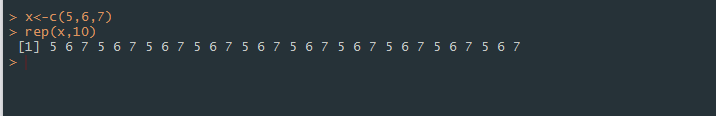
1. (1, 2, 3, .... , 29, 30, 29, 28, , 2, 1)



1. (4, 6, 3) and assign it to the name dev.

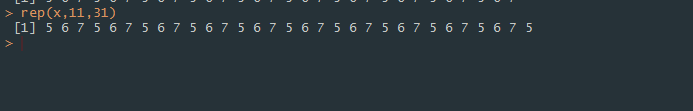


1. (5, 6, 7, 5, 6, 7, , 5, 6, 7) where there are 10 occurrences of 5.



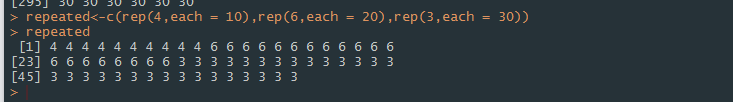
(f) (5, 6, 7, 5, 6, 7, , 5, 6, 7, 5) where there are 11 occurrences of 5, 10 occurrences of 6 and 10

occurrences of 7.



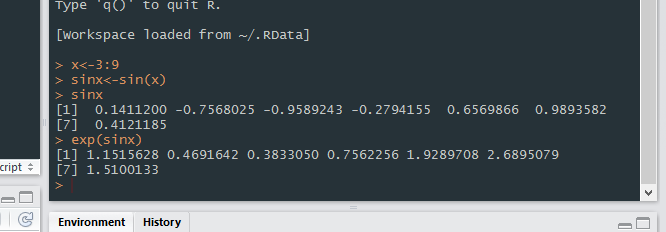
(g) (4, 4, , 4, 6, 6, , 6, 3, 3, , 3) where there are 10 occurrences of 4, 20 occurrences of 6 and 30

occurrences of 3.



Q2-Create a vector of the values of eX sin(x) at x = 3, 3.1, 3.2, , 6.

Ans- I have checked with acadgild support for the values, they said we can take any value for x.



Q3-Execute the following lines which create two vectors of random integers which are chosen with

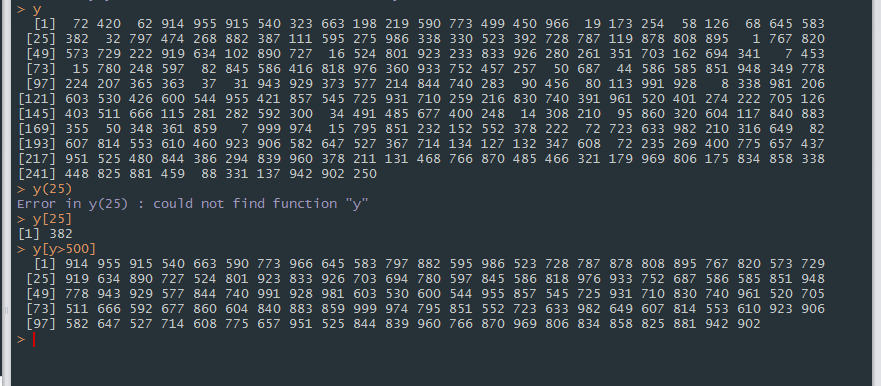
replacement from the integers 0, 1, : : : , 999. Both vectors have length 250.

set.seed(100)

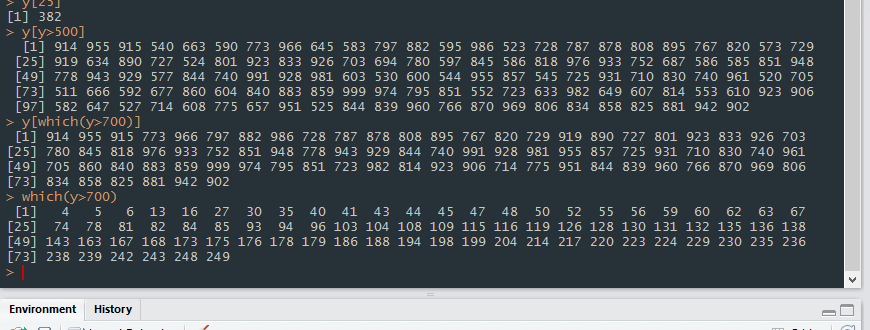
x <- Sample (0:999, 250, replace=T)

y <- Sample (0:999, 250, replace=T)

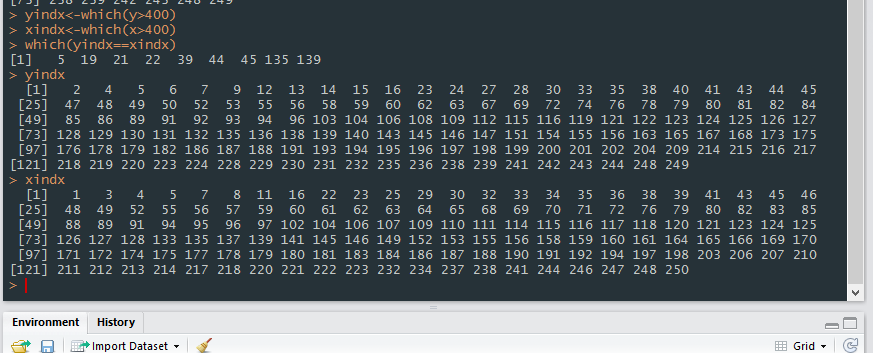
(a) Identify out the values in y which are > 500.



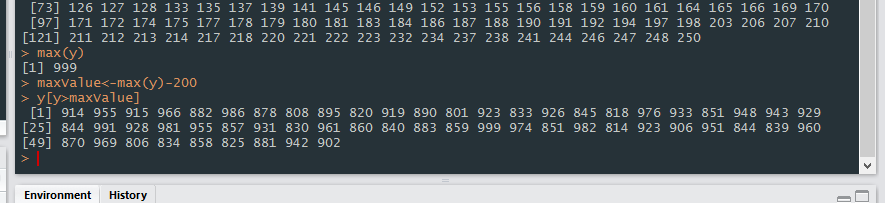
(b) Identify the index positions in y of the values which are > 700?



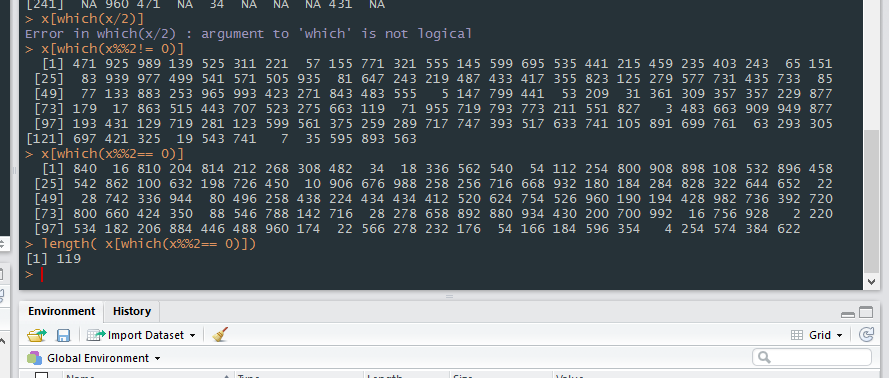
(c) What are the values in x which are in Same index position to the values in y which are > 400?



(d) How many values in y are within 200 of the maximum value of the terms in y?

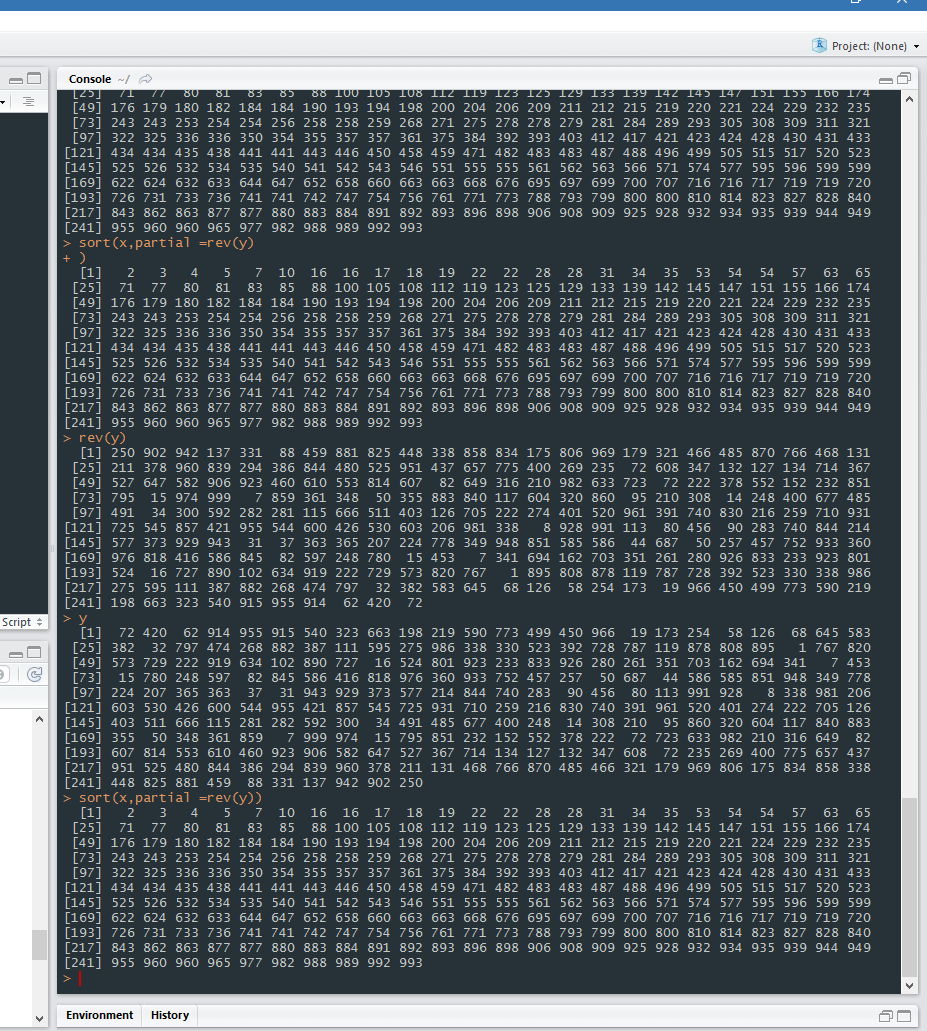


1. How many numbers in x are divisible by 2?



PTO

1. Sort the numbers in the vector x in the order of increasing values in y.

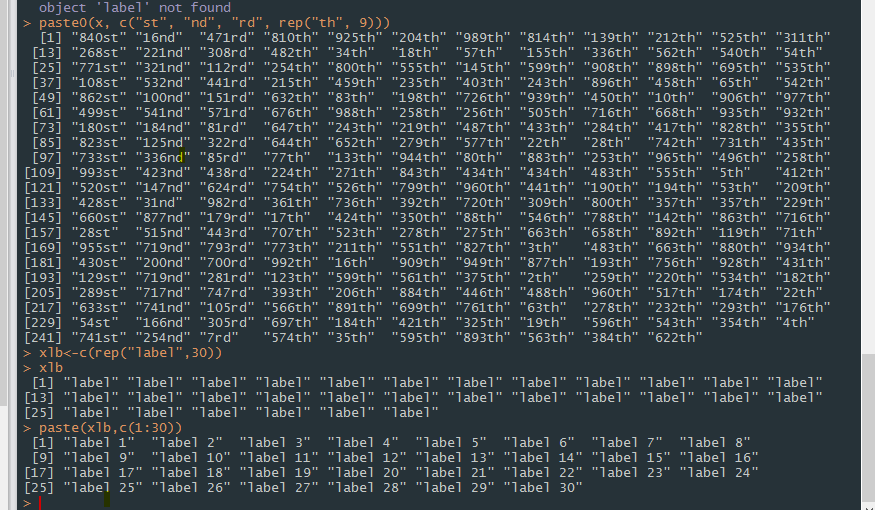


1. Create the vector (x1 + 2x2 - x3; x2 + 2x3 -x4 ,, xn−2 + 2xn−1 - xn).

**This equation does not make sense, because its incorrect…please provide the right equation**

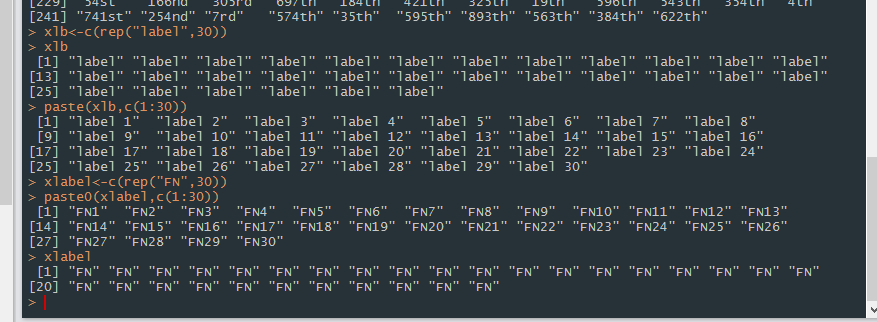
4. Use the function paste to create the following character vectors of length 30:

(a) ("Label 1", "Label 2", ....., "Label 30").\*Note that there is a single space between label and the number following.



(b) ("FN1", "FN2", ..., "FN30").

\*\*In this case, there is no space between fn and the number following.



5. Compound interest can be computed using the formula

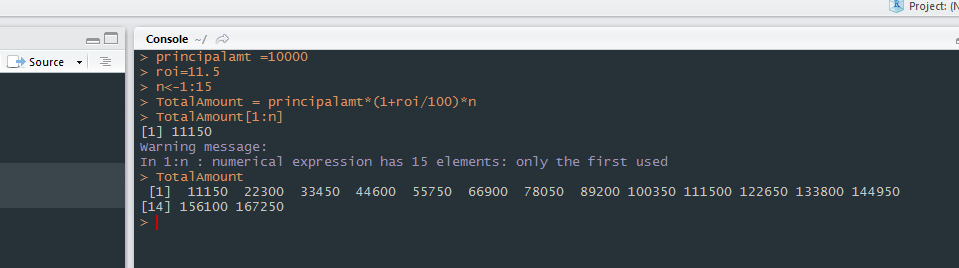
A = P × (1 + R/100)n, where P is the original money lent, A is what it amounts to in n years at R percent

per year interest.

Write R code to calculate the amount of money owed after n years, where n changes from 1 to 15 in

yearly increments, if the money lent originally is 10000 Rupees and the interest rate remains constant

throughout the period at 11.5%.



6) Generate the following matrices.

[,1] [,2] [,3] [,4]

[1,] 1 101 201 301

[2,] 2 102 202 302

[3,] 3 103 203 303

[4,] 4 104 204 304

[5,] 5 105 205 305

Ans –

