

# The last ride together essay sample

[Science](#), [Mathematics](#)



## Question 1:

Write a program to input a start limit  $S$  ( $S > 0$ ) and the last limit  $L$  ( $L > 0$ ).

Print all the prime triplets between  $S$  and  $L$  (both inclusive), if  $S \leq L$

otherwise your program should ask to re-enter the values of  $S$  and  $L$  again with a suitable error message.

## Algorithm:

- \* Start

- \* To input the lower limit

- \* To input the upper limit

- \* To run the outer loop

- \* To run inner loop

- \* To calculate total number of prime numbers between lower and upper limits

- \* To declare array with it's number of elements as ' s'

- \* To run the outer loop

- \* To run the inner loop

- \* To store the prime numbers in array a[]

- \* To run a loop for every position of array a[]

- \* If condition matches for the number for prime triplets

- \* Continue till all Prime Triplets are printed

## Question 2:

A unique digit integer is a positive integer (without leading zeros) with no duplicate digits. For example 7, 135, 214 are all unique digit integers

whereas 33, 3121, 300 are not. Given two positive integers  $m$  and  $n$ , where  $m$

Algorithm:

- \* Start
- \* To input the starting limit
- \* To input the last limit
- \* To run the outer loop
- \* To store the value of 'i' as a string
- \* To run the inner loop
- \* To run a nested loop of the inner loop
- \* To check for repetition of any digit in the number
- \* To store all the unique digit integers in a string
- \* To store the frequency of unique digit integers
- \* To print the unique digit integers and their frequency

Question 3:

Write a program which inputs Natural numbers  $N$  and  $M$  followed by integer arrays  $A[ ]$  and  $B[ ]$ , each consisting of  $N$  and  $M$  numbers of elements respectively. Sort the arrays  $A[ ]$  and  $B[ ]$  in Ascending order of magnitude. Use the sorted arrays  $A[ ]$  and  $B[ ]$  to generate a merged array  $C[ ]$  such that the elements of  $A[ ]$  and  $B[ ]$  appears in  $C[ ]$  in Ascending order without any duplicate elements. Sorting of array  $C[ ]$  is not allowed.

Algorithm:

- \* Start
- \* To enter the limit of first array (<21)
- \* To enter the limit of the second array (<21)
- \* To run a loop
- \* To enter the two arrays
- \* To sort the two arrays using bubble sort technique
- \* To copy the two arrays into a single array
- \* To sort the merged array using bubble sort technique
- \* To run a loop
- \* To print the elements of the i-th position
- \* To go to the next index of the next number

#### Question 4:

Write a program to input and store n integers ( $n > 0$ ) in a single subscripted variable and print each number with their frequencies of existence. The output should contain number, asterisk symbol and its frequency and be displayed in separate lines.

#### Algorithm:

- \* Start
- \* To enter capacity
- \* To enter the numbers in an array
- \* To run outer loop
- \* To run inner loop
- \* To sort the numbers in the array

- \* To run outer loop
- \* To run inner loop
- \* To transfer the values of the array in another array
- \* To check frequency and print

Question 5:

Write a program to input an arithmetic expression in String form which contains only one operator between two numeric operands. Print the output in the form of number. ( If more than one operators are present, an error output message " INVALID EXPRESSION" should appear).